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International Institute of UNESCO
for Higher Education in
Latin America and the Caribbean

Trends in Higher Education in Latin America and the Caribbean

Ana Lúcia Gazzola &
Axel Didriksson
Editors

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This volume, “Trends in Higher Education in Latin America and the Caribbean”, presents various themes in the field of Higher Education examined from a regional perspective. These texts will serve as a basis for reflection and discussion at the Regional Conference on Higher Education – CRES 2008.

The work is a result of a project of the same name which Axel Didriksson presented to the Governing Board of IESALC - UNESCO at its ordinary session from August 29-30, 2006. This date coincided with the beginning of the mandate of Ana Lúcia Gazzola, IESALC Director for the 2006 – 2008 period. For her part, on the occasion she presented to the council the project entitled “The Map of Higher Education in Latin America and the Caribbean” (MESALC). The “Trends in Higher Education in Latin America and the Caribbean” project seeks, using a future perspective, to identify possible scenarios and long-term trends in Higher Education, MESALC, for its part, presents snapshots of different aspects of Higher Education in the region, using indicators to make possible the construction of comparable national data bases that converge into a regional data base. Much like an atlas viewed in layers, stages, and sets of indicators, which make it possible to gradually focus on the realities of Higher Education in the region. MESALC is meant to afford the reader successive snapshots in simultaneous historical views. As complements, both projects are intended to foster the discussion and comparative study of public and institutional policies in the region. With the projects approved by the Board, committees of specialists were organized for their academic coordination under the direction of IESALC - UNESCO¹.

Through different meetings at the IESALC-UNESCO headquarters in Caracas, projects were formulated and methodologies defined for each one. In the case of the “Trends ...” project, themes to be treated were identified, as well as the different types of indicators for MESALC. Later, the projects were discussed and approved in two meetings – that of the Presidents of Councils of Rectors, and of the International, Regional, and Sub-Regional University Networks of Latin America and the Caribbean, organized by IESALC-UNESCO in November, 2006 in Brasília and in May, 2007 in Caracas, respectively². These two meetings were perhaps the most representative of all that had been held until that date between university associations and networks of the region.

As the result of the discussions that took place at these meetings, priority themes were defined for the “Trends ...” project among those that were proposed initially. In addition, various working groups were organized in order to jointly develop each of the themes, based on a vision of their mutual complexities and inter-relations, and aimed at making possible the

1 The members of the coordinating commission of the “Trends ...” project were: Eduardo Aponte-Hernández (Puerto Rico), José Dias Sobrinho (Brazil), Jorge Landinelli (Uruguay), Hebe Vessuri (Venezuela), Xiomara Zarur Miranda (Colombia), under the coordination of Ana Lúcia Gazzola (IESALC) and Axel Didriksson (Mexico). For the Map Project: Mauro Braga (Brazil), Galo Burbano (Colombia), Sylvie Didou Aupetit (Mexico), Luís Eduardo González (Chile), Gabriel Macaya (Costa Rica), Luis Piscocoy (Peru), Hélió Trindade (Brazil), Ernesto Villanueva (Argentina), under the coordination of Ana Lúcia Gazzola, Klaus Jaffé, and José Renato Carvalho (IESALC - UNESCO).

2 With the financial support of the governments of Spain (AECID), Brazil (MEC), and the Bolivarian Republic of Venezuela (MES), that made possible the projects and these meetings.

development of integrative proposals. The final result of the project is this collective work that we present here.

The themes and the respective coordinators are the following: the world and regional contexts of Higher Education, Axel Didriksson; the role of Higher Education in the construction of knowledge, Hebe Vessuri; quality, pertinence, and relevance: the social responsibility of institutions of Higher Education, José Dias Sobrinho; inclusion and equity, Eduardo Aponte-Hernández; diversification, differentiation, and segmentation of Higher Education, Jorge Landinelli; regional integration and the internationalization of Higher Education, Xiomara Zarur Miranda; Higher Education reforms, Ernesto Villanueva; accreditation and assessment systems of Higher Education in Latin America and the Caribbean, Sueli Pires and Maria José Lemaitre; government and governability of institutions of Higher Education, Daniel Samoilovich; and the financing of Higher Education, Luís A. Riveros.

Once the working groups had been organized and the treatment of the themes had begun, a new factor appeared: the year 2006 marked the tenth anniversary of the First Regional Conference on Higher Education in Latin America and the Caribbean (Havana 1996), which was preparatory for the 1998 UNESCO World Conference on Higher Education. Both IESALC-UNESCO and the various university networks of the region felt that it was vital to carry out a systematic and comparative analysis of the progress, changes, and impacts that had occurred since 1998 in Latin America and the Caribbean and in the world. Therefore, in August, 2007, IESALC – UNESCO authorities presented to its Governing Board the proposal of holding in 2008 a second Regional Conference on Higher Education, in the expectation that Latin America and the Caribbean would encourage the organization of a Paris + 10 Conference. The council approved the meeting and proposed that the themes of the “Trends ...” project, under development at that time, form the basis for discussion of the Regional Conference on Higher Education (CRES 2008). The themes of the project became themes for CRES 2008, and for its preparatory meetings. Together with the development of the studies, the themes were discussed at various national or sub-regional meetings, many with the participation of IESALC-UNESCO and the coordinators of the working groups of the project.

The result of the process described above is the work before you. It has become the basis for fostering a profound discussion to take place in Cartagena de Indias during CRES 2008. The work, published in Spanish and in English, is presented in three parts. Parts I and II, in Spanish and in English respectively, contain ten texts that correspond to each of the themes, under the responsibility of the thematic coordinators who appear as their principal authors. The treatment of the themes and the opinions expressed are the responsibilities of their authors. Part III is a CD-ROM which accompanies this publication. Its production was coordinated by Beatriz Tancredi³. The CD-Rom organizes and integrates, in their original form, the specific contributions to each theme by the consultants who made up the working groups. The authors of these texts assume entire responsibility for the opinions expressed therein. Their names are given in the summaries of each chapter and in the notes at the beginning of each summary text. In order to foster discussion among the conference participants, the texts that make up each of the above-mentioned publications are available on the web sites of IESALC-UNESCO and of CRES 2008.

3 Beatriz Tancredi also coordinated the management of the “Trends ...” project beginning in July, 2007, with the technical support of Erika Medina, María Fernanda Gutiérrez, Yeritza Rodríguez, and Zulay Gómez.

The “Trends in Higher Education in Latin America and the Caribbean” project is based on the principle that education is a public good and a social and universal right, and on the conviction that education has a strategic role to play in the sustainable development of the countries of the region. The project brings together the efforts of the academic and non-academic communities of the region in the important task of identifying desirable and feasible scenarios, as well as presenting the principal ideas and forces that can aid in defining state policies for the consolidation, expansion, and increasing quality and pertinence of Higher Education in the region.

The key to the project and the vision that has guided the elaboration of the texts may be summarized under the theme of the Regional Conference on Higher Education: “Local and Global Challenges: a Strategic Agenda for Higher Education in Latin America and the Caribbean”. It presents in prospective terms the challenges and opportunities faced by Higher Education in the region in the light of regional integration and of globalization. What it seeks, in essence, is to identify scenarios of change in order to carry out a new phase of substantive reforms of Higher Education, and to guide the efforts of the different actors, institutions, and governments toward the formulation of regional and state policies that can contribute to the sustainable development of the countries of the Latin American and Caribbean region. The objective is to shape a scenario for articulating in a creative and sustainable manner, policies that strengthen the social commitments of institutions of Higher Education, their quality, pertinence, and responsible autonomy. These policies should have as a goal the achievement of greater social coverage with quality, equality, and equity. They should induce the development of alternatives and innovations in curricula, in educational offerings, in the production and transfer of knowledge and learning, as well as fostering the establishment and consolidation of strategic alliances.

In Chapter 1, “Global and Regional Contexts of Higher Education in Latin America and the Caribbean”, Axel Didriksson (with contributions by Efraín Medina, Miguel Rojas Mix, Lincoln Bizzozero, and Javier Pablo Hermo) discusses the principal changes that have taken place in Higher Education in recent decades, such as growing heterogeneity and diversity, the rise of macro-universities and technical training institutions, expansion in the numbers of students and of the private system, the increase of scientific research, the impact of the new technologies, the commercialization of education, the development of new courses and new areas of interdisciplinary-based knowledge, and the growing importance of internationalization. He then analyzes the changes associated to the development of a knowledge society and the role of institutions of Higher Education in this perspective that require new models of training, learning, and innovation. Another aspect analyzed is the exclusion of Latin America and the Caribbean from international classifications in terms of knowledge and innovation, causing the region to be characterized, as revealed by science and technology indicators, as one that receives or imitates knowledge rather than for its innovation and creativity. The analysis distinguishes two kinds of knowledge societies: the nominal or unbalanced type, and the intelligent type in which the benefits of development are distributed to the majority of the population. In addition, the author treats the difficult conditions of the transition process through which the region is passing. The so-called “lost decades” of Latin America and the Caribbean resulted in a long period of economic contraction that damaged the quality and the equity of education. In spite of significant changes that have occurred, the region still shows

low indicators of educational development compared to those of the industrialized countries, while grave imbalances persist, such as the concentration of enrolments in a few countries and in specific fields of knowledge; the unequal distribution of researchers; and the uncontrolled advance of the private sector. The analysis then treats the effects of resource diversification policy in Higher Education, and the impulse given to market orientations. It affirms the need for basic reforms in institutions of Higher Education through the new actors in the processes of change – the researchers. Regional cooperation is presented as an important dimension in such change processes: student mobility, equivalences of degrees and titles, cooperation agreements, and particularly, university networks, are instruments that will foster moving toward a “Latin American society of knowledge”. An obstacle to this progress in the region is the poor use of the transition conditions toward a new economy, as revealed by low education rates within the labour force, concentration of research capacity in a few countries, the scant interest of the productive sector in developing endogenous capacity, and the flight of talent out of the region. The text concludes with a proposal for a new university reform, and for fundamental changes in terms of cooperation and integration in order to make possible the development of strategic research and the effective transfer of knowledge.

In Chapter 2, “Overtaken by the Future: Foreseeable Changes in Science and Technology” Hebe Vessuri (with contributions by José Miguel Cruces, Renato Janine Ribeiro, and José Luís Ramírez) treats the function of science and technology in the preparation of future transformations, and discusses foreseeable changes in their influence on Higher Education and on societies in Latin America and the Caribbean. She also discusses the ways of identifying possible and desirable techno-futures, the understanding of their scientific and institutional scopes, as well as their social implications. Considering the characteristics of countries such as those in Latin America and the Caribbean that are basically consumers of science and technology, the author discusses the alternatives and degrees of autonomy in the construction of their futures. She analyzes the role of knowledge in the modern world in codifying meanings and reducing uncertainty in the collective representation of social systems, resulting in a reflective and anticipatory capacity that explains the stability of the trajectories of knowledge-based economies. The author demonstrates that the promotion of certain agendas as rational and coherent does in fact foster a specific technological future, both in terms of scenarios and policies as well as in particular practices, while at the same time, other possible futures are discarded. Based on these considerations, the text concentrates on the analysis of various trends: changes in the stratified and hierarchical structure of science in this phase of globalization; the new technological convergence, particularly of nanotechnologies; the bio-sciences and information and communication technologies; the role of science and its impact on Higher Education; the production and consumption of knowledge, and the type of “science system” increasingly fostered in order to support the search for sustainable development.

The author then analyzes the great challenges of the next twenty years, which include the possibility of participating in the creation and distribution of knowledge from varied contexts, the forms of making effective scientific collaboration from different contexts, controls on types of patents, and other exclusionary mechanisms that will become more complex, diversified, and penetrating. She concludes that the ability to overcome barriers and frontiers will grow, while at the same time effective barriers will be defined. Another aspect analyzed is that of public legislation – which is also changing drastically as a result of competitive values and

interests, but without adequate and rapid political responses to technical change. Among the various questions posed for discussion, the author emphasizes the importance of defining what Latin America and the Caribbean are to do in order to manage new scenarios and to participate in the world that is emerging as a consequence of current developments in science and technology and those that will certainly appear in coming years.

In Chapter 3, “Quality, pertinence, and the social responsibility of the Latin American and Caribbean university”, José Dias Sobrinho (with contributors Adolfo Stubrin, Elvira Martín, Luís Eduardo González and Oscar Espinoza, and Pedro Goergen) argues that the quality of Higher Education is particularly linked to pertinence, equity, and social responsibility, and should take into consideration the public commitments and social roles proper to educational institutions. The text presents different concepts and aspects of quality in Higher Education, without disregarding the fact that education should always be considered as a public good, meaning that it is a social right to be extended to all, following a logic of decreasing inequalities and a commitment to social justice, as well as the goal of reconciling quantity and quality. Moreover, it is vital to consider the criteria of equity and of social justice, joined to the concept of education as a public good. The author states that quality does not exist in education systems that marginalize citizens, that are excluding, and in which inclusion is not fostered through the criteria of pertinence, relevance, equity, and quality.

The text also presents general suggestions for approaching the great heterogeneity of Latin America and the Caribbean. Stating that the social responsibility of Higher Education is also associated with the concepts of pertinence and relevance, and therefore, to quality as a public value, the author concludes that education cannot content itself with the economist and business meaning of development. He states that, consequently, the quality of Higher Education must clearly refer to the commitments of institutions, to the social meaning of knowledge and training, the ethical and moral values of collective well-being, the democratization of access and permanence, and to social justice and sustainable development. For this reason, quality assessment and accreditation models in Latin America and the Caribbean cannot copy the criteria and standards of the major powers, but rather must take into account the realities of different national contexts. This means that it is vital to preserve university autonomy in order for them to think independently and to make their decision based on agreed upon academic values, while maintaining as referents the criteria of pertinence, relevance, and quality.

Thus, there is a need for a broad technical and political discussion in an effort to arrive at an integral and integrating conception that, while producing some adjustments in language, can establish general criteria appropriate to national realities, to efforts at regional and sub-regional integration, and to solidarity-based internationalization.

In Chapter 4, “Inequality, inclusion, and equity trends in Higher Education in Latin America and the Caribbean: towards an alternative scenario for 2021” Eduardo Aponte-Hernández (with contributions by Mauro Mendes Braga, Luís Piscoya Hermoza, Dora Celton, and Daniel Macadar) begins a discussion on the theme based on declarations of the UNESCO Regional Conference on Higher Education in Latin America and the Caribbean of 1996, the UNESCO World Conference on Higher Education of 1998, and the Vision and Action for the XXI Century guidelines which propose fostering policies and action strategies for greater inclusion and equity of opportunities in institutions of Higher Education in order to broaden the access based on talent, skills, and effort, without discrimination in terms of gender, race, ethnicity,

physical disabilities, language, culture, religion, or economic or social considerations. These documents understand the educational process as one that begins early and extends to Higher Education, and that eventually merges with society.

The text discusses both inequality and movements in the direction of inclusion and equity in Higher Education in the countries of Latin America and the Caribbean, and makes recommendations in terms of public and institutional policies for reducing inequality and fostering inclusion and equity within Higher Education in the countries of the region within the time horizon of 2021. The author's analysis shows that, in spite of increases in demand and offers of study opportunities (access) in the region, the expansion is characterized by a differentiation in the scope of coverage, an increase in the cost of study, and heterogeneity in the levels of quality of institutions of Higher Education, thus resulting in more exclusion than inclusion. The same tendency is in evidence in secondary education. He then discusses the new economy and the advent of knowledge societies, a context within which the insufficiency of study opportunities and the absence or lack of effective inclusion policies in the region can have the effect of increasing existing inequalities, deepening the cognitive and "digital" gap, and thus encouraging the migration of talent, increasing unemployment, and resulting in a negative impact on cohesion and the social fabric.

The text emphasizes the important role of governments in the formulation and implementation of public policies in order to face challenges in the field of Higher Education, and affirms that such a role can neither be delegated to the market, nor to private initiative. Finally, through the analysis of trend indicators and the construction of scenarios, the author seeks to determine their impact on the political, economic, and social development of the region, and proposes lines of action for governments and Higher Education systems, with the support of international organizations linked to the development in institutions of Higher Education in Latin America and the Caribbean.

Chapter 5, "Scenarios of diversification, differentiation, and segmentation of Higher Education in Latin America and the Caribbean" by Jorge Landinelli (with contributions from Antonio MacDowell de Figueiredo, Marcela Mollis, Sabine Manigat, and Daniel Mato), treats the phenomenon of the stratification of systems by asking a vital question: are current institutional formats adequate for supporting the design and implementation of sustainable development policies in the region, linked to collective well-being, the construction of democratic citizenship, and the shaping of a new architecture of inter-culturality? The article links together two key analytic parameters. The first refers to the determinants of the organizational development of Higher Education in recent history – that is, the changes which, as results of complex social processes, have made necessary strategic reconsiderations that led to processes of diversification, differentiations, and segmentation of university organizations. The second parameter refers to the challenges presented by the new international division of academic labour, and the incorporation of Latin America and the Caribbean into the civilizing paradigm of information and knowledge societies.

In this context, the author argues that the future of Higher Education is linked to the propensity to interact on the international plane and to integrate academic activities, proposing a different scenario that makes possible a reassignment of meaning of institutions of Higher Education, aimed at the definition of alternate lines of action and explicit reforms that lend meaning to the changes, in accordance with the contexts proper to each national experience.

In this perspective, the author presents some necessary areas of structural renovation of education systems, within a perspective of future development based on the requisites of pertinence, and underlines the strategic meaning of the coordination of public regulation policies and democratic control of the quality of education.

In Chapter 6, “Regional integration and the internationalization of Higher Education in Latin America and the Caribbean”, Xiomara Zarur Miranda (with contributions by Sylvie Didou Aupetit, Galo Burbano López, Rafael Guarga, Lorna Parkins, and Gabriela Siufi) seeks to analyze in a regional context, the implications of the dynamic of expansion of world trade on educational services, currently driven by business interests connected to transnational economic agents, in the face of the possibility of carrying out other types of cooperation and integration in the region such as academic exchange agreements between universities with parity, the development of regional and sub-regional blocks, as well as other modalities conceived within the action framework of UNESCO.

The author presents a brief description of the context, trends, and the impact of a series of themes in regard to Higher Education in the region, as well as of the major changes that have occurred since the UNESCO World Conference of 1998, describing the current situation and the trends of the principle variables which have had an impact in this field. Among these are: quality, pertinence, the social responsibility of universities, inequalities in Latin America and the Caribbean in terms of access and study opportunities and conditions of permanence and graduation associated with conditions of poverty and social injustice in the region, the development of ICTs, and their impacts on education systems, and the need to establish new paradigms that make it possible to confront, on the one hand, the complexity of global and local contexts, and on the other, the ways in which universities will have to face situations such as the need for coverage, the training of professionals, and the production and use of knowledge in times of uncertainty.

Based on the above analysis, the author then introduces elements for defining the role of Higher Education in key transformations in order to achieve sustainable human development for Latin America and the Caribbean. This role is no other than being the catalyst for solidarity-based cooperation based on horizontal and complementary relationships that make possible fostering South-South dialogue, the development of a sense of pertinence in the region, cooperation with areas of governmental integration in order to influence the formulation of public policies, the nourishment of processes of development of teachers and students, and the generation and exchange of knowledge, among other factors, and all of this taking place in order to take mutual advantage of our strengths and to overcome our weaknesses as a region.

Finally, the author presents policy proposals and strategies for fostering the construction of new scenarios of international cooperation, and the development of specific capacities that make possible the promotion and establishment of integration processes of Higher Education in Latin America and the Caribbean. Among these are regional and sub-regional agendas, observatories of good practices, legislative reforms, and collaborative graduate study – all conceived from the perspective of the construction of desirable future scenarios, and the positioning of Higher Education vis-a-vis society and the state as we approach 2021. In these future scenarios the author emphasizes the role of IESALC-UNESCO as a network of networks and as a platform for bringing together the activities of other multi-lateral organizations and the university networks that function in the region.

In Chapter 7, “Higher Education reforms: 25 proposals for Higher Education in Latin America and the Caribbean”, Ernesto Villanueva (with contributions by Claudia Bogosian, Carolina González Velasco, Nicolás Bentancur, Maria do Carmo de Lacerda Peixoto, and Maribel Duriez González) states that changes underway in Higher Education represent a transition between the development style of the 1990s and the beginning of the construction of a new growth model and the distinctive presence in this level of education in the new century. The underlying determinants and final consequences of the changes in course are far from clear. It is possible, however, to point toward elements that indicate a different scenario.

However, the arrival of these elements represents a key opportunity for defining the position of the region for the World Conference on Higher Education to be held in 2009 as a forum for the discussion of the global policies that will guide Higher Education in the coming decade throughout the world. At the same time, consideration of these elements is vital in order to change the structural obstacles that affect the balanced development of the region, and involving a process of change in both organizations and institutions. Therefore, the article proposes 25 actions in regard to the following themes: the social commitment of advanced knowledge; the potential and challenges of new technologies; management and financing; and national and international frameworks.

Chapter 8, “Higher Education Accreditation and Assessment Systems in Latin America and the Caribbean” by Sueli Pires and Maria José Lemaitre (with contributions by Hélió Trindade, Eduardo Ali, and Hernán Trebino), treats the theme of accreditation and assessment of Higher Education in the region from a proactive perspective of change and improvement of the quality of social subjects and education systems, in order to convert quality assurance processes into assets for improvement rather than for the control or freezing of national systems. The article presents readers with an eminently practical view of what has occurred in the region in terms of assessment and accreditation, their functioning in a comparative perspective with a focus on trends, motivations, challenges, and risks. The presentation begins with a historical perspective, seeking to focus on scenarios of the recent growth in supply and demand (undergraduate and graduate) of Higher Education. It analyzes structural changes and the establishment of initiatives in countries in the Latin American and Caribbean region, beginning in the 1990s in order to establish and strengthen national assessment and accreditation policies within the context of the new knowledge societies. An analysis of the set of systems in the region reveals, on the one hand, countries with quite consolidated policies, and others with progress and successful national experiences. On the other hand, there are countries that are still in the phase of implementing their systems. Using a comparative perspective, the author points toward the strengthening of national and institutional systems as a challenge for the progress of education policies in the region. Both situations are discussed from the perspectives of their models, applications, social functions, and difficulties, within the framework of sub-regional and regional assessment and accreditation initiatives. Through the set of specific conclusions presented in the document of the comparative analysis of systems and of the pertinence and efficacy of quality assurance mechanisms, the analysis arrives at a general understanding of quality assurance assessment and accreditation processes which have changed from mere theoretical recommendations to effectively implemented policy in Latin America and the Caribbean, as well as in other regions of the world.

In Chapter 9, “Pathways to innovation. Re-thinking the government of public universities in Latin America”,⁴ Daniel Samoilovich states that Latin American universities need and deserve better government. Without denying the contributions they make to society, he sees universities as being lost in a labyrinth, the result of both scarcely articulated and insufficiently financed public policies and institutional inertia and corporative academic interests. However, he sees evidence that institutions are improving their governmental practices as a result of stimuli of context and of their own decisions through innovations that are contributing to better governability, understood as the capacity to develop an institutional project and put it into practice.

In order to reduce the great heterogeneity of situations, the work undertakes an analysis of the public universities in the region, while recognizing that many innovations take place within private institutions.

He explores, first, the contextual factors that require a greater response capacity of public universities: increases in coverage, an improvement in the permanence of students that come from underprivileged social sectors, greater pertinence and quality of their offerings.

In a second part, he analyzes the obstacles that commonly hinder the governability of institutions: their complexity, the diversity of their actors, their characteristics of loosely-coupled organizations, the intrinsic weakness of the form of authority exercised by rectors, and the little efficacious functioning of collegial bodies. Globally, the flow of power in the organization presents problems of “analytic topology” as in a Mobius strip.

The author then focuses attention on the disarticulation between three key functions: an institutional project, academic management, and financial administration. An important part of the obstacles is related to difficulties in linking these three orders of questions among each other, which produces various pathologies: strategic planning without implementation, academic management without a relation to an institutional project, and inertial resource allocation. Thus “good government” is seen as a triangle between the functions of government, academia, and administration. The work is not prescriptive since it doesn’t propose a model, but it does highlight the importance of the interaction between the three functions mentioned.

The third part analyzes major changes in public policies during the last 15 years – particularly in regard to norms, the introduction of assessment and accreditation systems, and the utilization of non-traditional finance mechanisms. In this sense, one can state that changes in norms have been scarce, reflecting a governmental determination of the difficulties or problems of proposing radical changes. There has been a preference, in general, to introduce assessment or accreditation mechanisms as a form of influencing the behaviour of institutions. It has been more difficult, however, to link the results of assessments with complementary financing mechanisms, which have in some cases been applied with disparate results.

Finally, the author proposes a route map for improving the governability of institutions and to identify institutional innovations that have a favourable impact on the governmental capacities of universities.

Chapter 10, “Challenges and dilemmas of the financing of Higher Education in Latin America and the Caribbean” by Luís A. Riveros (with contributions by Carlos Cáceres, Efraín Medina, and Jacques Schwartzman), presents the situation and context of the financing of Higher Education in the region. The author states that financing mechanisms and policies of Higher Education is one of the most decisive areas in Latin America and the Caribbean. On

⁴ This text is part of a IESALC-UNESCO project with the partnership of the Universidad de Buenos Aires and Columbus.

the one hand, the results of Higher Education have been considered crucial from the perspective of economic development and of the achievements desired by countries in this area, which requires specialized human capital and the development of applied knowledge. On the other hand, Higher Education is a sensitive area, and the treatment of new financing policies is a very important political factor. Furthermore, the impact of Higher Education on equity is important, with this having growing weight in economic and social policy. However, although the economic situation of Latin American countries has improved considerably in recent years, there have not been financial policies that guarantee the sustainable development of Higher Education, particularly in the fields most linked to public goods and the externalities that it produces. The expansion in demand for Higher Education in recent years has been covered through greater efficiency in the use of resources, but also through declining quality. On the other hand, the still scant private participation of the private sector in financing Higher Education as well as scientific research and technology is a cause for concern, given that state resources also show a decline due to new policies in the matter of subsidies. The policy challenges of Higher Education occur in seven inter-related areas: providing better access, quality, and equity; encouraging the training of high-level technicians; improving the training relevance of education in the presence of significant institutional autonomy; optimizing internal efficiency of institutions of Higher Education; discussing complementary models of student financing; improving the design of public financing; and carrying out significant changes in policies for financing research and development activities.

It is our hope that this work, the fruit of the reflection of researchers, rectors, Higher Education institutional authorities, and representatives of university networks and associations from 2006-2008 will provide a solid basis for discussion at the Regional Conference on Higher Education – Cartagena 2008.

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Ana Lúcia Gazzola and Axel Didriksson

Chapter 1

GLOBAL AND REGIONAL CONTEXTS OF HIGHER EDUCATION IN LATIN AMERICA AND THE CARIBBEAN

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* EDITORS' NOTE: the contributors' complete texts in their original version are included in the CD-ROM Trends in Higher Education in Latin America and the Caribbean. Contributions to the summary documents, attached to this volume, and can also be downloaded from the web site: www.iesalc.unesco.org.ve

Introduction

The complexity of Higher Education in the region, both now and in the future, can be viewed in a series of historical and emerging trends, in its heterogeneity, its inequality, but above all in the role that public universities and some very outstanding institutions of Higher Education can assume in order to construct a new scenario that can aid in significant improvement in the living conditions of its populations, and provide the possibility of greater well-being, democracy, and equality coming from science, education, and culture.

The changes analyzed have been persistent, and our opinion will be even more pronounced in the coming decades. The reality of these changes may be expressed through the following examples:

- 1) from the traditional public universities that dominated the panorama of the region, we have moved toward the organization of a complex, heterogeneous, and socially segmented system of Higher Education that presents a reality very different from its past; from institutions with a single urban campus to public national macro-universities with multiple campuses with differentiated structures and the establishment of a segmented and diversified system.
- 2) From higher secondary level technical and vocational schools there has arisen a significant apparatus of polytechnic and technical secondary and tertiary level institutions.
- 3) From the existence of a few and relatively unimportant private schools to their dominance in many countries, with the concentration of the private sector in social access and in the number of its institutions.
- 4) From little scientific research and a reduced number of researchers, there is now, in spite of insufficiencies, a large variety of science laboratories and institutes that cover all areas of human thought and its frontiers.
- 5) From a few thousand students that made up an elite of professionals, the region is experiencing a massification of social demand for Higher Education.

To the changes that have occurred in the past, one can add those of the new period, such as the commercial and mercantile transformation of private schools; the impact of new technologies that redefine learning venues; the development of new interdisciplinary areas of knowledge that begin to be seen as replacing the traditional curriculum and course offerings; the severe contraction of financial resources provided by governments, with a mix of assessment, accountability, and accreditation mechanisms that evaluate the performance of institutions, programs, and persons; the growing importance of internationalization of learning processes; the appearance of new academic networks and associations; the mobility of students; and new processes of the transfer and management of knowledge.

The above are only some of the trends that during recent decades have brought about changes in Higher Education in Latin America and the Caribbean, within enormous social and economic gaps of equity and inequality, as well as of governability.

1. Universities, societies, and knowledge

In order to explain the role played by institutions of Higher Education in fashioning new expressions of society, cultural, social and economic relations, globalization, intense local changes of regionalization and the creation of diverse and contrasting sub-regional or regional blocks, it is necessary to foster a broad discussion on the nature of the current changes within the framework of what has been characterized in different and even contrasting ways as the development of a “knowledge society”.

In this sense, trends such as the following have been identified:

- 1) We are in a new period with reorganization of the set of spheres of political, social, and economic life by way of the production and transfer of new knowledge and technologies, particularly those related to information technology and telecommunications, biotechnology, and nanotechnology.
- 2) In this period, one of the most important sectors, and one that also emphasizes the impacts of these changes, is that of Higher Education, because its tasks are related directly to the characteristics of the levels of development and innovation of the major components of science and technology. This is due to the fact that many aspects, in order for this process to occur, depend on these educational institutions, above all due to what is learned and organized as knowledge and due to their quality and complexity, and the magnitude and quality of all that they represent for society.
- 3) Consequently, institutions of Higher Education are destined to carry out a key role if they are able to carry out fundamental changes in their models of training, learning, and innovation.

We find ourselves in a condition of general risk. This perspective, of a nature more preventive than catastrophic, points toward the need to place at the centre of this discussion the problem of the character and subject of the changes that Higher Education can carry out.

The subject is not unimportant. It is a case of living in societies that daily face insecurity and social, economic, and environmental instability; above all as a consequence of what is at the centre and reason of being of these educational institutions: the advancement of knowledge, science, and technological innovation. Decisions in this regard are not completely pertinent and appropriate from the point of view of the “neutral” progress of science, and sometimes operate under logics that are racist, seeking to achieve unmeasured profit, and of operations that can end up destroying vital parts of the existence of the planet or of the mass of human beings.

Societies in which knowledge, science, and technology play a key role within an intelligent perspective of development cannot accept the reproduction of the conditions of extreme risk and instability such as those in which we live.

Within the framework of gaps and asymmetries of the current international division of knowledge, technological innovation, and the revolution in science and its applications, the Latin American and Caribbean region finds itself excluded. This contrast is evident daily, and is disheartening for the institutions of Higher Education of the region, which find themselves obliged to carry out processes that have more to do with the transfer of knowledge and its imitation than with innovation and creativity from the perspective of one’s own culture and of clear identification with social and economic priorities in benefit of the majority of their populations.

These gaps are evident both quantitatively and qualitatively; that is, in the number of persons involved in the production and use of knowledge, in transformation of the meaning of information, as well as its impact in generating improved conditions of well-being and equity among consistently excluded populations. This is what is reflected by indicators that treat the number of persons educated, their degrees of schooling, the number of researchers, and their participation in the benefits of a computerized culture.

A recent UN report (2005), states that there are different types of knowledge societies: those of the “nominal” type, and those of the “unbalanced” or “contradictory” type, the potentials of which are not related to improvements in the well-being of the population, and can even go against their interests for the benefit, above all, of large trans-national companies and of an increasingly wealthy minority. This is in contrast to another type “intelligent” knowledge society in which the benefits of the development of knowledge, information, science, technology, and their democratization are aimed at benefiting the majority of the population.¹

A *smart* knowledge society as defined in the work quoted², does not consist of the assets coming from science and technology or the innovation of companies, but rather in the assurance of high levels of quality and security of life of the population, and the achievement of a profound, rather than a simulated democracy; that is, it is a case of how a society freely decides how to organize its future, and here is where it decides whether to be a society known as “intelligent” or not.

Each phase in the building of a society and of a culture appears with a different common meaning, with new instruments and technologies, with thoughts, uses, and customs, and, of course, new ideas. This is a phase of social life in which that which one learns can be decisive in order to place oneself within this new period, and in which education and culture are socially determinant³.

This state of mutation is found everywhere, and has points of contact, of domination, and differentiation, but since this is a case of a long-term historical transition, it presents itself as a complex parallelogram of forces that come from all sides and that have unequal causes and effects in terms of what is ending and what is appearing.

1 “Nominal knowledge society- a surprisingly frequent phenomenon these days. Government strategies and policies proclaim the desire to achieve the goal of the Knowledge Society but none of the programs in place or envisioned contain believable plans that would measure up to the task of the needed institutional transformation. None or only very little of the potential brought by the ability to mass-produce knowledge is utilized. To the extent that it is, it is by accident rather than by design...Warped Knowledge Society- where institutional transformation occurs but are careful to stop before they disrupt the prevailing balance of power. These tend to focus on only a narrow spectrum of the application of mass-produced knowledge. If the current transformations in the industrialized countries were to stop at the level of building the Knowledge Economy, this is what would most likely obtain. In this situation, part of the potential brought by the ability to mass-produce knowledge would remain underdeveloped and/or unutilized, contrary to the interest of the society as a whole...”Ver en: United Nations. Understanding Knowledge Societies. U.N. New York, 2005, p. 46.

2 “Smart Knowledge Society” - where the pattern of change has been understood and acted upon. Institutional changes open broad avenues for limitless development of people and information and they rebuild social organizations for mass production and mass utilization of knowledge. There is no systemic tension between thoughts about fuller utilization of the ability to mass-produce and mass-utilize knowledge and the existing institutions, as the latter remain in an adjustment-friendly posture. In a democracy, public power is locked in the super-encompassing interest that embraces the society as a whole. The market produces with no loss to society as a whole. Actions are in synch with values and an open political process watches the fit among outcomes, values and actions. Human development and protection of the biosphere function as goals and means of development. No one should expect that Smart Knowledge Society to become the prevailing way in which human society is organized in a predictably short time. However, it is worth the struggle for the freedom to make it happen”. *Idem*.

3 As Manuel Castells states; “We are entering into a new state in which culture makes direct reference to culture, once nature has been dominated to the point that it is revived (“preserved”) artificially as a cultural form: in fact, this is the meaning of the ecology movement – to reconstruct nature as an ideal form of culture. Due to the convergent of historical evolution and of technological change, we have entered into a purely cultural model of social interaction and organization. It is the beginning of a new existence and, in effect, of a new era – that of information, and marked by the autonomy of culture in the face of the material bases of our existence” Manuel Castells. La Era de la Información. La sociedad Red. Vol. 1 Ed. Siglo XXI, México, 1999, p. 513-514.

The concept of transition from one period to another is what determines the character of the large wave that occurs, and in it everything appears and everything disappears, while the imperishable remains untouched, and the novel does not show sufficient energy to be able to stand on its own. It is of the same essence as the specific type in which this large wave of general change is presented. Therefore, what appears as a dominant trend will not necessarily endure through time.

From the perspective of Latin America, this condition of cycle and period has taken on specific conditions – above all its links with production and the transfer of new knowledge, and in the role played by higher, and particularly university, education.

This is the sense of progress of a particular society toward a defined and original type of knowledge society, and as we will see, this presents much less than favourable circumstances and truly difficult conditions in the region.

2. General development of Higher Education in Latin America and the Caribbean

Beginning in the 1980s, very important political, social, and economic changes appeared that pointed to the presence of new trends and profound alterations in education systems in most countries of the region.

In contrast to what occurred in other parts of the world, in which Higher Education models were reconstituted using guidelines of institutional differentiation, the trends and changes felt in Latin America made reference to a long period of *retraction of economic resources* that provoked constant adaptations, altered definitively the relation of participation and management of traditional sectors of Higher Education, thus seriously weakening the legitimation capacity of centres of power, their proposals, and their strategies.

At this time began a long period of general economic contraction known as “the lost decades” of Latin America and the Caribbean, which lasted until the end of the XX century. During that time, real income per capita decreased drastically, and with it public resources for institutions of Higher Education – above all for public universities.

In contrast, the trans-nationalization of Higher Education in the region began to gain momentum, incited from distant transnational headquarters in the United States, Canada, Spain, and other countries with a multiplication of distance on-line education programs⁴, offering degrees and certificates that often appeared without any regulation.

However, the economic results of these policies did not in any structural way improve the quality of life nor the well-being of the most people in the region, or in general indicators of human development, including levels of education. These continued to be precarious, to say the least.

The results of these policies were summarized by UNESCO in an end of the century report (2002):

... the implementation of austerity measures has limited the quality and equity of and access to education. The average time spent in the school system by current juvenile cohorts in Latin America is less than nine years, with this being

4 “The largest supplying countries are the United States, Great Britain, Japan, and Australia. The latter has a long tradition of trans-national Higher Education, in particular in offering programs to Asian countries located in the Pacific. Education has become one of the major export activities of Australia, having generated in 1996 3.2 million Australian dollars in tuition and non-tuition payments”. See: Fernández Lamarra, N. *Toward a new agenda for Higher Education: internationalization, quality assessment, and virtual education nueva agenda para la educación superior: internacionalización, evaluación de la calidad y educación virtual*. 2004, Forum de Barcelona, junio 2004, p. 11.

only one year and a half more than twenty years before. This figure conceals large inequalities caused by the income levels of parents and the fact of living in the countryside or the city, and is well below the twelve years which, in the judgement of the Economic Commission for Latin America and the Caribbean, is the minimum education necessary in order to earn a salary that can allow an individual, among other socio-political factors, to rise out of poverty during his or her working life. Since, according to the UNDP human poverty index which measures the lack of fundamental dimensions of human development, poverty affects more than 5% of the population in all countries of the region except for Argentina, Costa Rica, Cuba, Chile, and Uruguay, and more than 20% in Bolivia, El Salvador, Guatemala, Honduras, and Nicaragua, the lack of progress in the number of years that the population spends in school is of great concern.⁵

According to United Nations figures⁶, the Human Poverty Index figures in 2005 for Latin America and the Caribbean were the following: Uruguay 3.5%, Chile 3.7%, Argentina 4.1%, Costa Rica 4.4%, Cuba 4.7%, México 6.8%, Trinidad and Tobago 7.3%, Colombia 7.9%, Panama 8.0%, Venezuela 8.8%, Paraguay 8.8 %, Brazil 9.7% and Dominican Republic 10.5%. GDP growth during the 1990s in the region was only slightly above that of the 1980s, reaching a rate of around 3%.

With all of these conditions, the 1990s witnessed a new growth of Higher Education, from other perspectives and very different from what occurred from 1950-1970. Thus:

Higher Education in Latin America recorded growth since the second half of the XX century. The number of university institutions went from 75 in 1950 to more than 1,500 currently – most of which are private. The number of students went from 276,000 in 1950 to nearly 12 million currently; that is, in 50 years enrollments grew 45 times over [...] the annual rate of enrollment growth since 1990 has been 6%. The rate has been much higher for private universities (8%) than for public universities (2.5%). This has led to the fact that currently, more than 50% of university enrolments in Latin America are in private institutions. This is much different from what was the case until the 1980s, when Latin American universities were predominantly state owned [...] the growth of enrollment has led to a significant increase in the gross tertiary rate of schooling: from 2% in 1950 to 19% in 2000 (having multiplied ten times over in 50 years). However, this rate is much lower than that of developed countries: 51.6% in 1997⁷.

From the 1.9% of people between 20 and 24 years of age who studied in Higher Education in the region in 1950 to the 20.7% average in 1994, the region entered fully into the model of mass participation at this level, with all of the important differences by sub-region and country⁸. In the latter year, total enrolment of Higher Education in 19 countries of Latin America and the Caribbean was 7,405,257 students, of which 68.5% were in public universi-

5 UNESCO. América Latina y el Caribe, Informe Regional 2002. Estadísticas de la Educación, UNESCO, París, p. 12.

6 ONU, (2007). Informe sobre Desarrollo Humano 2007-2008. Madrid, España.

7 Fernández Lamarra, N. *La Convergencia de los sistemas de educación superior en América Latina. Situación y Desafíos*. Mím, Universidad Nacional de Tres de Febrero, Buenos Aires, Argentina, noviembre, 2004, p. 2-3.

8 García Guadilla, C. *El Valor de la Pertinencia en las Dinámicas de Transformación de la Educación Superior en América Latina*. In: CRESALC-UNESCO. La Educación Superior en el Siglo XXI. Visión de América Latina y el Caribe. Tomo 1, CRESALC-UNESCO, Caracas, 1997, p. 48. The autor notes here that: "this average conceals large regional differences, with one country, Argentina having already achieved the universal access model; 12 countries in the category of the mass model, with averages of between 25% and 35%; and six countries that are still in the elite model, with schooling rates of below 15%".

ties, and the rest in private institutions. The total number of institutions at that time was⁹.

In spite of the growth in enrollment and in social and economic demands of the period, the resources available to universities were insufficient:

... in Latin America and the Caribbean, the proportion spent on Higher Education is less than 0.9%, throughout the period considered [author's note: from 1980 to the middle of the 1990s] with the exception of Costa Rica and Venezuela which spent slightly more than 1%. There was a decrease in the proportion during the 1980s, and a recovery at the end of that decade, reaching the values of the 1990s. The variation between countries analyzed went from 0.42% to 1.4%. As a reference, one should note that the average for the OECD countries for 1992 was 1.2%, with a variation of 0.3% to 2.2% ... in the Latin American and Caribbean countries analyzed, public spending per student in Higher Education, in dollars per year, was \$1,469 in 1980 and \$1,325 in 1990. Note that average per-student spending in the OECD countries was \$7,940 dollars per year, or nearly six times more than in the countries in Latin America¹⁰.

For the beginning of the 1990s, the relation between academic research and industry continued to be organized from the traditional perspective: a separation of different and even exclusionary disciplinary worlds, in spite of the fact that there were already important, but very localized, successful experiences¹¹. Even so, the views of analysts were quite pessimistic:

In any case, one should not exaggerate the extent to which these kinds of industry/university links could have occurred in Latin America. On both sides there exist deep cultural barriers that separate them and that make universities distrust companies and companies distrust universities. Academic researchers cling to the traditional scientific *ethos*, in part as a defence of their corporative identity, and in part in order to continue in relatively protected practices that make university research possible – frequently distant from demands of productivity, quality, and recognition by third parties outside the community of peers.¹²

Toward the middle and end of the 1990s, the panorama was not much different, although some significant progress had taken place. The regional average of numbers of researchers per million inhabitants was only 339, but Cuba had 2,600, and some other countries such as Mexico, Chile, Brazil, Venezuela, Colombia, Costa Rica, Puerto Rico, Uruguay, and Argentina began to foster explicit policies of the recognition and promotion of critical masses for better development of science and technology along with the creation of a pole, albeit small, of knowledge production. In sum, the situation was the following: while Latin America represented 8% of the total world population, it could boast only 1.6% of world scientific publications, 0.2% of patents, and 0.2% of applied knowledge¹³.

9 *Idem*, p. 49.

10 Various authors. *Financiamiento y Gestión de la Educación Superior en América Latina y el Caribe*. In: CRESALC-UNESCO. La Educación Superior en el Siglo XXI, Visión de América Latina y el Caribe. Tomo 2, CRESALC-UNESCO, Caracas, 1997, p. 671-672.

11 See, for example, for the Mexican case: ANUIES. Casos Exitosos de Vinculación Universidad-Empresa. ANUIES, México, 1999. For the Argentine case: Jorge Katz, et. al. Productividad, Tecnología y Esfuerzos Locales de Investigación y Desarrollo. Programa BID/CEPAL, Memoria de BID-Trabajo No. 13, marzo 1978, or other experiences in: BID-SECAB-CINDA. *op. cit.*, p.83.

12 Brunner J.J. Educación Superior, Investigación Científica y Transformaciones Culturales en América Latina. In: BID-SECAB-CINDA. *Vinculación Universidad Sector Productivo. Colección Ciencia y Tecnología*. No. 24, Santiago de Chile, 1990, p. 83.

13 Guarga, R. El Papel de la Investigación. At: Jorge González, et. al. *La Universidad Pública en la Respuesta Iberoamericana a la Global-*

Nor did companies respond to the new wave of renovation, continuing to not invest significantly in R&D. While in the developed countries, impetus for the production of knowledge maintained the pace of a private investment of between 60% and 70%, in Latin America business people spent only 10% to 15%.¹⁴

For 2005, and according to the classification of the Human Development Index of the United Nations, Argentina, Chile, Uruguay, Mexico, and Panama were considered within the group of countries with high human development, while the rest of Latin American countries were classified with the group of medium human development.

However, in the so-called *Education Development Index* with the exception of Argentina, the countries of Ibero-America were placed in low positions at the world level, below a third of countries with greater development (Canada, Great Britain, the United States, among others)¹⁵.

During the first years of the XX century, of the total number of institutions of Higher Education in Latin America and the Caribbean (8,756), there were 1,917 private universities and 1,023 public universities, as well as slightly more than 5,800 advanced institutes of all types and levels. Together, these had a total enrollment of nearly 14 million students throughout the region of which 94,995 were in the Caribbean. The total figure represented 259 students for every 10,000 inhabitants, with a gross schooling rate of 28.5%. In the large majority of countries, female participation exceeded 50% of enrollments, and in some countries, including the Caribbean, it was above 60%. In contrast, the gross rate of schooling in North America and in Western Europe reached 57%, with female participation of 51.7%.

Some 60% of Higher Education enrollments in Latin America and the Caribbean are concentrated in three countries: Brazil (28%), Mexico (17%), and Argentina (14%), followed by Peru (6%), Central America (6%), Chile (4%), Bolivia (2%), and the Caribbean (1%).

The countries that have a concentration of students of between 75% to 100% in public institutions are Cuba, Uruguay, Bolivia, Panama, Honduras, and Argentina. Those that have the greatest percentages (between 50% and 75%) of students in private institutions are Brazil, Chile, El Salvador, Colombia, Costa Rica, Nicaragua, and Dominican Republic. In an intermediary situation, so to speak, having significant proportions of students in both the private and the public sectors are Ecuador, Mexico, Venezuela, Paraguay, Peru, and Guatemala. It should be noted, however, that the trend toward an increase in the participation of private institutions of Higher Education has been constant in the region.

In terms of the distribution of the number of students by areas of knowledge and courses, there continues to be a strong trend toward concentration in the social sciences, business, and law, which reach 35% (in Argentina, Chile, or Surinam), 40% (in Brazil, Colombia, Guatemala, Mexico, and Panama), and up to 50% (in El Salvador). In the sciences, the regional average is around 10%, and in some cases slightly more. The engineering area varies between 7% (Argentina) to 29% (Colombia). However, if one adds the percentages of students enrolled in areas of the social sciences, business administration, and law to those in the humanities, arts, and education, this group then represents more than 60% of the total in the region.

The majority of researchers in the region are institutions of Higher Education, above all in

ización. Universidad Nacional de Córdoba; Asociación de Universidades Grupo Montevideo; Junta de Extremadura. Argentina, 2002, p. 160.

14 "We find ourselves here as if in a world turned upside-down: in Latin America, 85% of research is carried out in universities, and 15% or less in companies. In the developed countries listed in the OECD, 70% is carried out by companies, and 20% in universities". Rafael Guarga; op.cit. p.163.

15 CINDA. *Educación Superior en Iberoamérica*. Informe 2007. Indicadores de desarrollo humano e integración social. p.53.

public universities: 65.1% of the total, or 0.87% researchers for every 1,000 members of the economically active population. In terms of scientific publications, Latin America and the Caribbean account for only 2.6% of total publications at the world level (see the appendices).

In all, with the increase in the number of institutions and other groupings, during the last 10 years, national and autonomous public universities (those defined as “macro-universities”¹⁶) were the institutions that most increased in size, occupying a privileged position in the spectrum of diversification, and those which expressed themselves, at times in an exclusive manner, as the only complex institutions, above all due to their growth in research and graduate studies.

This means that these universities in Latin America and the Caribbean found their own place within the logic of changes that began to occur increasingly beginning in the 1990s in the context of a new discussion regarding the concepts of quality, transparency in financing, accountability, curricular flexibility, equity and pertinence, the use and management of new information and communication technologies, telecommunications, and the production and transfer of new knowledge – all of this within new legal, legislative, political, and organizational frameworks.

For this reason, the most influential public universities in the region, especially the largest and most complex, had the task of guiding discussions and responses regarding the development of new lines of research, links with product and services sectors, their technological transformation, and above all the training of particular types of human resources related to the production of new knowledge.

These universities began to feel that what had to be done was to initiate a long period of basic changes in their structures, organizational systems, management, and government under very difficult circumstances politically and economically, and above all for obtaining public resources for Higher Education and because social demands continued to grow.

In terms of state financing, contraction due to the economic crisis and foreign debt payments brought forth policies called “resource diversification” that took place in parallel with low government subsidies and the proliferation of sectoral and individualized stimulation programs for academic institutions and the search for a much sought after “excellence” that could justify the use of educational services and for research from the perspective of the optimization of spending.

In general what one can conclude in regard to this change of national Higher Education, science, and technology policies in Latin America and the Caribbean is that, assuming that companies and governmental institutions would direct new resources and would diversify the sources of financing, investments toward new fields and toward the possibility of new expansion of demand and supply remained at a standstill. In effect, things were “left alone” with policies that were undefined, but market orientations toward Higher Education and research were directly impelled, with short-term objectives and scant transcendence.

Within this scenario, scientific and academic communities chose a survival mode and recurrent pressure toward achievement of external standards, and often under different control systems. This was directly evident particularly in national public universities, whenever one found a concentrated and strongly developed production and transfer of new knowledge, and in which research in science and technology had deployed as in no other institution.

16 See Didriksson A. *Las Macrouiversidades de América Latina y el Caribe*. IESALC-UNESCO Caracas, 2002.

One should also recognize the existence of a positive, broad, and diverse series of reform processes in outstanding institutions of Higher Education. But these were far from constituting a basic change in the system, especially in terms of academic and knowledge management, or in make possible the reality of a new educational offering and new platforms of training of generations articulated to a knowledge society.

As stated in a review carried out by IESALC-UNESCO:

There are a wide variety of Higher Education system reform processes underway in the region. But although these are positive, they are still far from signaling an in-depth transformation of Higher Education in the region. The agendas of change proposals refer, in the best of cases, to: forms of the university; information and communication technologies; structure and operation; assessment and accreditation processes; personnel development; student performance; and forms of university financing. But the organization of knowledge, institutional profiles, epistemological frameworks, and their translation into organizational forms for faculties, schools or courses, do not even appear in the declarations and foundations of the proposed reforms. The reforms in course are not reforms in the way of thinking; rather, they are technical adjustments guided toward responding functionally to different demands. Thus, Latin American and Caribbean Universities today face strong dilemmas, trends, and challenges that they must solve, consider and confront¹⁷.

According to Carlos Tunnermann:

One of the great weaknesses of Latin American education has been the little attention that in the past has been given to curricular reform. Curricula, seen traditionally as plans of study or lists of courses, were not seen as keys to academic reform processes. We know today that the curriculum is where innovative trends should find their best expression. Nothing better reflects the educational philosophy, the working methods and styles of an institution than the curriculum that it offers. The curriculum should transform into reality the educational model that an institution fosters.¹⁸

Thus, as we have noted, basic change in plans of study and course offerings, their epistemological framework and their tradition in organizational forms, have been part of neither a systematic, nor comprehensive, nor general effort in the region, although there have been very significant institutional experiences and good practices that are worth analyzing¹⁹, whenever there are tendencies worth emphasizing in this general framework.

For this reason, we insist that mere disciplinary and professional training is no longer sufficient in order to an appropriate social capacity of meaningful modern learning. Only the comprehensive re-definition of curricula will be able to generate these new capacities for thought and praxis directed at production of the kind of knowledge that is pertinent to and appropriate for our reality and the provides the possibility of linking this knowledge to a new offering of university training areas and courses.

17 Lanz R., Fergusson A., Marcuzzi A. Procesos de Reforma de la Educación Superior en América Latina y el Caribe. In: IESALC-UNESCO. Informe sobre la Educación Superior en América Latina y el Caribe 2000-2005. IESALC-UNESCO, Caracas, 2006, p. 110.

18 Tunnermann, C. *La Universidad Necesaria para el Siglo XXI*. HIPAMER/UPOLI, Managua, 2007, p. 231.

19 See Didriksson, Axel; Alma Herrera. Informe Mundial sobre la Educación Superior (to be published), GUNI, Barcelona, 2008.

Therefore, the emphasis on a new reform of Higher Education should design and put into practice a new Latin American and Caribbean learning-centered paradigm, and a new and innovative model of academic offerings; offerings that can provide the broadest range of scientific, technological, and humanistic experiences that makes possible a quality leap in social responsibility and in the commitment of the institutions of Higher Education of the region.

This paradigm depends on the institutions transforming themselves into permanent learning organizations in which innovation constitutes the key to a new academic culture.

In this regard, there are three processes that should be carried out in order to break with traditional, reproductive, and technical-functional traditions:

- Curricular development based on cross-cutting themes and fostering of values. This process involves the integration of multiple learning environments, from normal classroom to on-line, that take advantage of all of the possibilities of an individual or of his or her social group to learn at a high level.
- Mobility of students and academics based on flexible programs. This process carries with it significant changes in university organization because it generates systems that lead to maximum use of collective learning and of networks.
- Re-dimensioning of disciplines to focus on problems and on the new areas of modern knowledge.

3. Perspectives on the debate on Higher Education

At the beginning of the XXI century, the form of public university agendas began to change significantly. Within two decades, emphasis went from the themes of serving social demands, on growth, decentralization, or planning, to the concern for themes such as assessment and accreditation, the use and management of financial contracting, and to extra-budgetary resources based on competitiveness, the charging of tuition and on increases in their own resources, to commercialization and the intervention of international financial organizations.

With this, the traditional change actors in universities (students and unions) have been less active in regard to university reforms (concentrating on self-interest demands), and researcher and university academic authorities have attained greater interest and dynamism as the most relevant actors in defining internal and external changes in these institutions.

Moreover, traditional schemes for the allocation of governmental subsidies have changed. Diversification policies introduced greater competition between institutions, and the idea emerged that public universities needed to begin to stop being the most representative institutions of Higher Education within the national spectrum, in favour of private institutions.

Nevertheless, in regard to installed capacity in undergraduate, and especially in graduate programs, to the number of researchers and of projects, to scientific production, and to the cultural capacity of initiatives, public universities have clearly maintained their leadership in Higher Education systems nationally and regionally.

Along with these changes, regional cooperation in Higher Education has experienced a remarkable increase. With relative successes, and with many programs and projects underway, the themes of university mobility, of equivalencies of certificates and degrees, of joint programs in different areas and levels, of the extensive use of new technologies, of shared degree pro-

grams, of the establishment of networks and multi-lateral programs, are extremely current and have become part of the priority agenda of changes in institutions of Higher Education at the regional level.

In practice, and with the exception of lower quality and less representative institutions, the vast majority of public universities have some kinds of bi-lateral and tri-lateral relations, and in some cases throughout Latin America and the Caribbean.

In this new century, the panorama of Higher Education, however, remains at a kind of impasse and in abeyance because, in spite of the fragmentation and heterogeneity of the predominating model, with a set of new institutions of different character and level (private and public, university and non-university, polytechnic, technological, with short cycles, commercial, among others), and of the new wave of expansion of demand for Higher Education, we witness a reproduction, on a greater scale, of the largest inequalities and iniquities of gender, race, and ethnicity, and particularly of socio-economic conditions of parts of the population, together with the idea that the logic of the market is one of the best referents of educational quality, while trans-national interests encounter broad channels for expansion of the commercialization of Higher Education services.

Thus, with the tremendous impact of this increasingly unequal reality, we also find significant progress in different programs, institutions, and policies of all kinds – but above all in the impulse for change that has taken place in universities themselves, especially in public institutions, in order to foster important initiatives and innovations. For example, we should emphasize that structures, associations, networks, and entities of different levels and development already exist that represent a new phase of autonomy, excellence, and construction of platforms that are indispensable for facing the tasks related to a Latin American knowledge society.

This is seen in the work of entities such as the *Unión de Universidades de América Latina* (UDUAL), the Red de Macrouiversidades Públicas de América Latina y el Caribe, of the Asociación de Universidades Grupo Montevideo, the Primada Asociación Subregional del Consejo Superior de Universidades de Centro América (CSUCA), as well as the Caribbean university network (UNICA), the Andrés Bello Agreement (CAB) for Andean and non-Andean countries, and many other associations that are witness to the changes taking place in Higher Education in favour of a new development.

One should also mention other agencies such as those of European and international cooperation, including the Asociación Internacional de Universidades and the Agencia Española de Cooperación Internacional. The latter currently administers financial resources of the Government of Spain, of the United Nations Development Program (UNDP), the European Union, the Sistema Económico Latinoamericano y del Caribe (SELA), and the United Nations Conference for Trade and Development (UNCTAD) for macro-cooperation programs such as INTERCAMPUS (for the mobility of students and academics), MEC-MER (scientific cooperation), IBERCUE (university-business-cooperation) and specific support activities.

In a decision adopted on March 10, 1994, the European Union offers the ALFA program for Latin America, which is based on similar programs in Europe (such as ERASMUS, TEMPUS, and COMETT). The ALFA program seeks to: “foster cooperation between Higher Education networks of Latin America and Europe” as well as promote cooperation programs for institutional management and scientific and technological training. One

should also note the cooperative work and support carried out by Universia, of the Banco Santander, which has provided different kinds of support to programs on the regional, sub-regional, and national levels.

All of the above means that we are entering a new phase of projection and internationalization of Higher Education in our countries, and this is related to the importance of continuing to foster initiatives that contribute to university mobility, integration processes, and shared academic training, as well as to work to foster inter-institutional horizontal cooperation as an element for the design of policies that should explicitly seek the internationalization of their programs and attain higher levels of regard for studies.

Also, of course, in order to go beyond the current traditional structure of international cooperation normally carried out through exclusively bi-lateral agreements administered by academic exchange offices of most of the universities of all countries of Latin America and the Caribbean. In recent years, there has been an attempt for such programs to be guided by the recognition of the quality of undergraduate and graduate programs, and this has been established as vital in order to facilitate regional cooperation.

With all of the above, the possibilities of attaining the transformation of Higher Education systems and the development of large and important research projects within the perspective of creating a powerful sector of endogenous knowledge continue to be very limited for the region, except for specific cases or reduced niches of sustained growth. The trend seems to be that while other countries and regions make decided progress in investment in, and growth of, structural bases of knowledge and a new economy, in Latin America and the Caribbean the gaps grow between minimal technological capacities and the quantity and quality of institutions that constitute the training bases of researchers and of personnel in order to maintain a mode of knowledge production.

According to some estimates, the countries of the region will take between 15 and 20 years to converge their telephone systems, as a fundamental basis for the development of telecommunications, micro-electronics, and the Internet²⁰. The result is that the number of personal computers per one thousand inhabitants in the region is abysmal compared to the most developed countries of the OECD: 317 vs. 33. In spite of the prediction of significant growth in the number of computers and in Internet use in the coming years, the participation of the population in these areas basic to achieving a desirable level of computer use will be low, given the fact that the average schooling of the economically active population is below six years of basic instruction – the same level as Hong Kong, Taiwan, and Singapore thirty years ago²¹.

This also means that in the region, the majority of the young adult and adult population has a low level of audio-visual learning, in that they can read, but not understand what they read, and much less engage in advanced reading and make use of the kind of codified language used in electronic media. The result is that the level of knowledge-based competition is, for Latin America, a more complicated scenario than that of other nations.

Due to its history and tradition, coming from colonization and successive phases of development, Higher Education did not enjoy an endogenous technological and scientific organizational base. Therefore, the organization of courses was, and remains, concentrated in the social sciences, some of the humanities, business administration, and less in engineering, medicine,

20 Based on *World Times Information Society Index. World Future Society*, Mexican chapter. Boletín Informativo, No. 4, México, 2005.

21 *Idem*.

and services related to tasks of the state.

It is for this reason that over the years, the relation between the production of knowledge and the demands of organizations, companies, and economic development and the profiles of graduates of institutions of Higher Education has been a weak one. This determined the flow and quantity of the development of scientific articles, of patents, and the contribution of the region to the global development of science and technology. It has also been a factor that has generated the large, non-returning flight of talent from the region at the world level.

The concentration of scientific and technological activity in the region is found above all in large public universities, the *macro-universities*²², that still have the most important concentration of scientific, humanistic, and technological courses, a complex organization that includes most of the areas of modern knowledge, with 80% of all graduate studies, and above all doctorates, and that contribute the most to basic research in the region.

Nor does contemporary reality overtake our expectations and desires, in spite of significant advances, above all in the progress of basic schooling and an increasing number of children and young people with sufficient learning to be able to interact with the written word, but not for complex understanding and symbolic knowledge.

In the transition in which we find ourselves, the context of the production of knowledge still encounters unequal conditions, some of which we can try to resolve, but not entirely to our satisfaction. This is because once must realize that in the region, the process is not easy and never has been, but now it presents itself with unequal and unbalanced transitions throughout the region, above all in the development of the levels of the education system: a bit disarming in the primary system, and much more so at the tertiary level, but a disgrace at the secondary²³ and lower tertiary level, due to incongruent education policies and above all to its reflection: the orientation of investments at these levels and their results primarily in terms of the quality of services offered.²⁴

However, the global relation of interdependence with other countries with a high level of sustained development in R&D suggests positive indicators of improvement, at least in the research-productivity-better salaries relation, that can suggest a polarized pattern of what occurs in some sectors of Latin American production:

Stated differently, it is not only the quantity of trade that is important, but with whom one trades, so that the imports from high R&D countries and industries are particularly important as an incentive for improvement. A former work of Machin and Van Reends (1998) shows that there is a strong association between the intensity of R&D at the industrial level and the salaries for trained workers in a sample of OECD countries. Foreign R&D, transmitted through trade, increases relative salaries, participation in employment, and the demand of workers for worker with tertiary education in Latin America. In a document con-

22 Didriksson, A. *op. cit.* IESALC-UNESCO, 2002, Caracas.

23 In general, the region presents a massive deficit in enrollment in secondary education. The table in the appendix indicates that Latin America has a deficit of almost 19 percentage points in secondary enrollments. By way of contrast, the "Asian Tigres" have a surplus of almost 18 percent, and the countries with abundant natural resources have a surplus of 6 percent". De Ferranti, David, et. al. *Estudios del Banco Mundial sobre América Latina*, Washington, Editorial Alfaomega, p. 29-30.

24 "Taken together, this suggests that the countries of Latin America are receiving less transferred technology from the nearby "leaders" on the global technological frontier than their competitors. Latin American countries also have low levels of domestic R&D, and register few patents, even when controlled for level of income. In practice, this means that a worker in Finland, Sweden, and South Korea is operating with more advanced nacional or foreign technologies than his or her counterparts in Brazil, Argentina, or Mexico". De Ferranti, *Idem*, págs. 41-43.

taining basic information, Pavnik *et.al.* (2002) shows that there is also evidence of technological change based on the specific education of sectors, transferred through trade ²⁵.

A comparison with other countries of the world shows that Latin America is not taking advantage of conditions of the current move toward a new economy, for all of the reasons that one wishes to offer, in order to move toward a knowledge-based society²⁶. The fact is that, for the beginnings of a new century, only a few markedly public universities maintain the substantive capacity to carry out research, with a limited number of researchers (10 times less than in developed countries) and with an investment that does not exceed 0.5% of GDP and with an always deficitory structure ²⁷.

In summary, the conditions of development of the knowledge production sector remain reduced, and in many cases as secondary and marginalized, which has the following basic features:

- Low legitimacy of scientific activity, where scientific knowledge is not fully valued nor supported.
- A reduced platform of social learning, with the result that the development of skills, capacities, competencies, and values related to production and transfer of knowledge is neither fostered nor planned, and its promotion finds itself with abysmal gaps compared to what occurs in other parts of the world.
- Scant interest of the productive sector in developing an endogenous capacity in science and technology: “With exports concentrated on natural resources, and with markets for manufactures relatively small and protected, for a long time there was no stimulus or need to innovate. Our life-styles and consumptions patterns attempted to imitate the industrialized countries. It was always easier to import “turnkey” technology. Even after trade liberalization, multi-nationals carried out almost all of their R&D programs in developed countries”²⁸. This lack of coordination – not expressed in national innovation systems – which would involve a greater and better level of “articulation”, presents itself as one of the most important obstacles to attaining the development of a knowledge production sector.
- Lack of clarity in strategies for the development of science, technology, and Higher Education. With the gradual withdrawal of the state in the area of financing for Higher Education, science, and technology, it was thought that this would bring with it an increase in the offer of investments by the private sector, which did not occur. With this, the fate of

25 *Idem* p. 68.

26 “Not only did Latin American countries fall behind the “Asian Tiges” and Finland from the point of view of average educational attainment of the labour force; the transition pattern was also different. In 1960, there was (on average) one worker with a tertiary education for every 5 or 10 workers with secondary education in almost all Latin American countries and in East Asia. Between 1969 and 2000, this proportion of workers with a tertiary education compared to those with a secondary education more than quadrupled in Bolivia, Chile, Costa Rica, Ecuador, El Salvador, Guatemala, Panama, and Venezuela, and more than tripled in Argentina, Brazil, Dominican Republic, Honduras, and Peru. The volume of Latin American countries improved, making the distribution more skewed. The only exceptions to this pattern were Mexico, Cuba, and the countries of the English-speaking Caribbean. *Idem*. p. 78.

27 “Of the more than 2,500 research units existing in Latin America and the Caribbean, 78% are found in only 6 countries. Less than 10% of government investment in science and technology is dedicated to R&D in engineering, and this results in a limited capacity of the region in the area of technology. The absence of a strategic vision of Latin American society is reflected, among other aspects, in the immense and absurd loss of many of the best researchers who emigrate to industrialized countries, where their work is appreciated and valued. It is estimated that between 40% and 80% of Chilean, Peruvian, Argentine, and Colombian researchers live and work outside their countries”. Gómez Buendía (director). Educación, la Agenda del Siglo XXI, hacia un desarrollo humano. Programa de Naciones unidas para el Desarrollo, Colombia, 1999, p. 318.

28 Gómez Buendía. *op. cit.* p. 320.

the knowledge production sector depends, above all, on the efforts of academic communities and of a group of universities in the region.

- An on-going brain drain that dissipates local efforts and exports physical and human resources for the development of knowledge of other countries, without achieving neither the appropriate transfer of this knowledge, nor a new relation of cooperation that could be based on overcoming existing gaps, imbalances, and asymmetries.

Finally, we should remember that the most important recent moment of collective reflection that occurred in the region was within the framework of the debate on the change in Higher Education fostered by UNESCO, and that culminated in the world conference held in Paris in October, 1998. For Latin America, this moment represented one of the most important efforts of researchers, universities, ministries, NGOs, and other actors, that made it possible to carry out studies and analyses of great relevance for Higher Education. The interested parties came together and presented at the regional meeting sponsored by the then CRESALC-UNESCO (currently the International Institute of Higher Education for Latin America and the Caribbean, a change in status and name proposed precisely at that meeting) held in the city of Havana during the month of November, 1996²⁹.

The position assumed, in general, by the regional meeting in Havana was to present alternatives for Higher Education, guaranteeing knowledge as a public good; increased state financing, and the transformation of universities in order to respond to the challenges presented by the knowledge society, but always from a perspective of social relevance in the face of the advance of commercialization and excluding globalization. As an example, in a work presented on that occasion concluded:

In order to construct pertinent responses, it will be necessary to place ourselves in a field where crisis, turbulence, and disorder stop being seen as only contexts of risk, and begin to be viewed as fields of possibilities. A shared construction of new realities requires the collective efforts of all involved actors, to build a knowledge society that guarantees equity, and thus is at the service of all social sectors. In a knowledge-based society, the equitable distribution of wealth involves, more than ever, an equitable distribution of knowledge³⁰.

In this sense, alternative designs for achieving greater and better levels of development of the production of knowledge should include the transformation of universities and of other institutions of Higher Education fostering ample social relations and based on a broad academic and organizational reform from an endogenous and authentic perspective.

In consideration of the above, it has become possible, and is now necessary, to initiate a new strategy of institution-to-institution cooperation and mobility, with the objective of making possible the creation and empowerment of the social capabilities of the countries of Latin America in order to produce and to transfer endogenous scientific and technological knowledge at the national, regional, and international levels.

From the strategic perspectives of these initiatives, the structural change of Higher Education must be seen as an imperative; and here it is very important to put into place new initiatives for regional cooperation.

29 See UNESCO-Centro Regional para la Educación Superior en América Latina y el Caribe-Ministerio de Educación Superior de la República de Cuba. *La Educación Superior en el Siglo XXI, visión de América Latina y el Caribe*. Ediciones CRESALC-UNESCO, two volumes, Caracas, 1997.

30 García Guadilla, C. *El valor de la pertinencia en las dinámicas de transformación de la educación superior en América Latina*. In: UNESCO-CRESALC-Ministerio de Educación Superior de Cuba, *op. cit.* P. 77.

The development of an endogenous capacity to produce and to transfer knowledge, and for its local, sub-regional, and regional empowerment should be the central objective of new forms of cooperation. This means that local actors are the ones who are principally responsible for the design and formulation of proposals, programs, and projects for change, and are the major actors in the transformation process.

Thus, this scenario of regionally-based cooperation and change is an alternative scenario for achieving a new recognition of the social value of knowledge, because it emphasizes meeting new demands and requirements of institutions of Higher Education which must begin from here forward to plan new organizational structures as well as new training processes in the creation of a new regional and global work force.

This scenario of a new university reform makes possible the integration of different networks, the participation of communities in institutional democratization and in public life, as well as the generalization of environments for permanent learning. This involves changing to a pedagogical and organizational model that sees education as taking place the unity of the different, in the construction of new objects of knowledge, in reflection regarding others and of the whole, in the impulse toward self-learning schemes and in the recognition of diversity.

This concept of university reform is based on identifying institutional and regional strengths, on the understanding of original developments, on the search for the reconstitution of the capacities of individuals and sectors, and not on their differences or in reproduction of their inequities. In terms of Higher Education policies, it represents a change model that favours the exchange of experiences, the articulation of their functions, and inter-relationships rather than competition.

Above all, this alternative concept involves thinking about the quality of education not in terms of its products or ends, but rather in terms of real conditions of general human development, and of the social value of the knowledge produced and distributed, and that are linked with national and regional priorities.

This means a change of paradigm of the concept of university reform in the contemporary era, moving toward the conception of an open organization, of different levels of participation of its multiple actors; one that is flexible, self-regulated, and strongly oriented toward sustainability and social commitment.

The production of knowledge means that the knowledge produced in research, as well as in new learning systems, is defined by the contexts of its application and by its public utility.

Therefore, the production and transfer of knowledge is an articulated process, from existing knowledge to that which is produced and re-created. This includes a set of elements and components of knowing what to do and how to do it, expertise, varied skills and techniques, mechanisms, programs, institutions, agencies and actors in the process. An institution that organizes itself in order to produce and to transfer knowledge to society should be, therefore, complex, dynamic, and differentiated.

The organization of institutional and collective innovation demands increased efficacy in decision-making, in their centralization, in greater participation between entities of the same level, in greater delegation of responsibilities and authority, and in a broad integration of autonomous units.

4. Conclusions

As institutions of great importance for economic, cultural, and social development, the expectations that fall upon institutions of Higher Education, and especially on universities, are provoking unlimited pressures for the redefinition of policies and plans, of the frequency of programs, and for alternatives in the search for new organizational models.

These trends and impacts refer to a dialect of scenarios that have significantly changed what the idea of the university was several decades ago as to its functions, sectors, governability, quality, and very place in society.

One should emphasize, however, that the impact of the new social, technological, and productive global standard has resulted in the emergence of networks, structures for cooperation, and new frameworks of integration at the regional and inter-institutional levels that present the possibility of constructing an alternative, or parallel scenario to that of institutionalized competition and the logic of the (dominant) model of the market.

In this we refer to the possibility of constructing a scenario for a new university reform that results in greater cooperation between institutions and sectors, that is structured into networks and community areas, and in which institutions collaborate without losing their feeling of identity.

This new university reform scenario would seek to foster an alternative university model characterized by the production and transfer of the social value of knowledge and of the pertinence of the academic tasks of the university. This scenario is based on the transformation of structures into networks and on institution – to – institution cooperation that grants priority to joint (or inter-institutional) projects, to the broadest possible occupational mobility of academic personnel and students, to the validation of courses and certificates, to co-participation of resources, and to a solidarity-based social orientation.

Educational values are most shared and concentrated in the change of knowledge content and disciplines, in the creation of new social skills and capacities that seek to relate national or regional priorities with work in new areas of knowledge and innovation that seeks to diversify risk. This scenario is based on intensification of the participation of communities and on the diversified increase in obtaining resources.

Thus, the *scenario of change through cooperation and integration*, in order to attain a new level of social recognition of the value of knowledge, is offered as an alternative, because it emphasizes in serving new demands and requirements of institutions of Higher Education which should begin from this point forward to plan new organizational structures that foster the access to the knowledge of social value, and its creative processes in the creation of the new regional and global labour force.

This point of departure cannot take place if mechanisms for full participation are not guaranteed to academic communities and the modernization of inter-institutional relations in order to guarantee the quality of academic processes, and if substantial reforms are not made in legislation and forms of government in order to establish permanent channels of communication and information in order to regulate spending, strengthen and develop infrastructure, and carry out an appropriate transfer of knowledge regarding the requirements of society.

The new paradigms of academic organization appear with the creation and performance of complex academic units that relate individuals, working teams, and networks of different

levels and perspectives, with putting into place interdisciplinary structures, and with the relative autonomy of their organizational levels.

The key organizational step, however, can occur if one begins discussion and the fostering of *levels of knowledge transfer*. Until the present, the functions of the production and transmission of knowledge have been *the structural keys of the development of institutions of Higher Education*. **Currently, thought should be given to a new substantive function more toward the transfer of knowledge to society, in particular toward real social and economic actors whose roles relate directly to the use and exploitation of knowledge.**

Effective knowledge transfer depends on the training and development of specific skills and learning in order to adapt the knowledge produced and transmitted for social and economic use. This has to do with the perspectives of social responsibility of the *institutions* of Higher Education, and with norms and procedures for producing patents and intellectual property, with the relations of these institutions with private and social enterprises, with the state, with other institutions, and with the broader spectrum of international cooperation and participation within international knowledge networks.

Thus, the new university policy should be related to policy of science and technology and operates in correspondence with much more horizontal structures in terms of its particular dynamics; with agendas based on the concept of the “development of strategic priorities”, in a division of labour based on the production and transfer of knowledge.

The role that universities play, or should play, is concentrated, then, on the definition of priorities in the production and transfer of knowledge as a public good, and as a social good based on a non-private commitment in terms of research and teaching. That is, their products, processes, and the levels of administration for their development cannot be used for obtaining a private good or for private appropriation.

This has to do with a new category of research that should be established: that of *strategic research*. Strategic research differs from research “guided by curiosity” or by “economic utility” because it is not limited to one discipline. It does not respond to the individual interests of researchers, nor to the economic interests of any private company.

Strategic research responds to short, medium, and long-term interests. It is basic, applied, or experimental. But it depends on the establishment of national, social, or specific priorities that seek a solution related to a context, to problems; and it is both inter-disciplinary and trans-disciplinary.

Strategic research assumes, therefore, the explicit definition of problems to be met that seek fundamental solutions for the development of a country or a region, and for the well-being of the majority of the population, above all the well-being of the poor.

This means that the innovative university should commit itself to solving concrete problems, to developing basic technologies, and to fostering the generation and transfer of new knowledge and technological solutions from the aforementioned perspectives. This does not mean that universities are to become parts of the indicators of national productivity or components of the gross national product. Rather, it refers to a prior step; to the production of knowledge and its dissemination within the society and the economy, to being part of a product of innovation before scientific and technical knowledge are marketable.

The key to the quality of the educational process, then, is found in the social utility of the knowledge produced and distributed by university institutions. This concept of quality is directly related to the current social value of knowledge.

This assumes the idea of a **university of innovation with social pertinence**; an active and dynamic social institution, based on the training of workers of knowledge, with a high level, commitment, and responsibility to social change, democracy, peace, and sustainable development. It is a university in which the social quality of the value of knowledge that it produces and transfers is presented as an organizational principle. The key to its changes is found in the character of its educational processes and in the profile of an institution that responds to the challenges presented by the transition to democracy and by development for well-being³¹.

Some final items for reflection in regard to the design of short, medium, and long-term policies for achieving the scenario described above are the following:

1. In order to face the conditions of the region, one must effectively think about strategies of regional and international cooperation that make possible the re-definition of the terms of the asymmetries, and which can transfer knowledge, science, and technology, human and physical resources, to foster the development of the productive sector articulated with knowledge. In this sense, it is worth including the subject – as a key factor in negotiation – of demographic change at the world level, in which Latin American countries will have in the coming years a very significant number of young people and young adults, with more extensive tertiary and technical training, which if not used, can constitute an immense social loss, or e a social platform of learning that with adequate rates of return, can fertilize local knowledge as well as contribute to the progress of international knowledge.
2. Universities must transform themselves in order to respond to the new network structures and become bases of learning of high social value in knowledge from a research and interdisciplinary perspective based on the context of its application, without failing to maintain their critical view toward society and their commitment to human development and sustainability.
3. Consider the possibility of constructing regional academic networks, very broad programs of student mobility, above all at the doctoral level, joint graduate programs and new courses in areas at the cutting edge of knowledge related to the most urgent problems of the region; joint use of the installed infrastructure of science and technology; mobility of academics at the regional level in short courses, research levels, and in networks of scientific and technological cooperation in defined projects and the creation of a continental macro-university based on universally interchangeable academic programs for academic credit.

31 From the perspective of the new orientation that Latin American and Caribbean universities should carry forward, it is important to think very carefully about the subject of internationalization and of the influence of world indicators that have been regarded with much prestige. This is a case of comparisons that take as the “ideal” perspective or as “models” universities that stand out due to their influence in the production and transfer of new knowledge and technologies, due to their innovations and successful relations in the world market. This has produced a hierarchy that fails to take account of the differentiated contexts of and efforts carried out in universities and other institutions of Higher Education in developing countries, among which only some are considered in such hierarchies, commonly called “rankings”, placing them in a classification as “world-class” universities.

For the institutions of Higher Education of the region, their social commitment, their autonomy, and their relation to the demands of the majority sectors of their countries are rarely, if not ever, considered in these rankings. Therefore, it is worth while critically analyzing them and to avoid a mechanical standardization in this regard. The most debatable issue is the following: by introducing a trend toward the dominance of rankings in the region, one runs the risk of a gradual reduction of the social orientation and of the concern for pertinence, sustainability, and autonomy which, as we have emphasized here, are and should continue to be priorities and important factors of the history, identity, and the concern for the present of Latin American and Caribbean universities.

4. Maintain a Higher Education and research quality assessment system in order to project its social and public function, guarantee new standards of reference toward society, and create mechanisms in all countries to make it effective, with the contribution of all sectors of interested society.
5. Without doubt, it will be necessary to continue to insist on significant increases in investment in Higher Education, in science and technology, in order to encourage the private sector to intensify its efforts in R&D, without forgetting the positive and increased actions by states.

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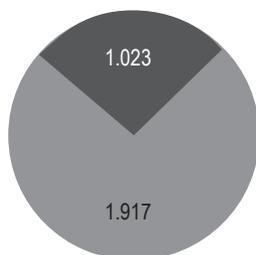
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STATISTICAL APPENDIX

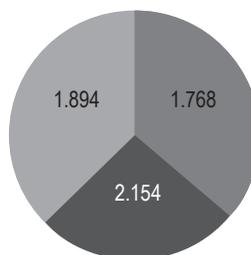
General source (unless otherwise specified)
Iberoamerican Network of Science and Technology (RICYT), Buenos Aires, 2002

Higher Education INDICATORS IN LAC

TOTAL LATIN AMERICAN AND CARIBBEAN UNIVERSITIES	
PRIVATE UNIVERSITIES	1.917
PUBLIC UNIVERSITIES	1.023
TOTAL	2.940
PRIVATE INSTITUTES	1.768
PUBLIC INSTITUTES	2.154
INSTITUTES NOT IDENTIFIED	1.894
TOTAL	5.816
GENERAL TOTAL	8.756



● UNIVERSITIES PUBLIC
● UNIVERSITIES PRIVATE



● INSTITUTES PUBLIC
● INSTITUTES PRIVATE
● INSTITUTES NOT IDENTIFIED

PRIVATE INVESTMENT IN THE REGION IS MORE DIRECTED TO THE BUSINESS OF EDUCATION THAN TO SCIENTIFIC RESEARCH, WHICH ACCORDING TO ITS LOGIC, IS NOT PROFITABLE

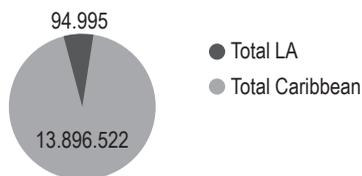
Number of public and private universities

COUNTRY	PRIVATE	PUBLIC	TOTAL
Argentina	44	55	99
Bolivia	36	15	51
Chile	38	25	63
Colombia	137	73	210
Costa Rica	50	4	54
Cuba	0	54	54
Ecuador	37	28	65
El Salvador	25	1	26
Guatemala	9	1	10
Honduras	8	4	12
Nicaragua	40	4	44
Panama	28	4	32
Uruguay	4	1	5
Venezuela	27	22	49
Guatemala	9	1	10
Mexico	1.159	615	1.774
Peru	45	28	73
Brazil	190	86	276
Dominican Rep.	31	2	33
TOTAL ALC	1.917	1.023	2.940

Number of public and private research institutes

COUNTRY	INSTITUTES PRIVATE	INSTITUTES PUBLIC	TOTAL INSTITUTES
Argentina	1.196	1.795	2.991
Bolivia	0	0	0
Chile	158	0	158
Colombia	83	34	117
Costa Rica	7	60	67
Cuba	0	10	10
Ecuador	199	138	337
El Salvador	10	6	16
Guatemala	0	0	0
Honduras	2	1	3
Nicaragua	29	45	74
Panama	31	8	39
Uruguay	7	3	10
Venezuela	69	51	120
Guatemala	0	0	0
Mexico	0	0	127
Peru	...	...	...
Brazil	...	...	1737
Dominican Rep.	7	3	10
TOTAL ALC	1.768	2.154	5.816

Regional totals of participation in Higher Education 2003

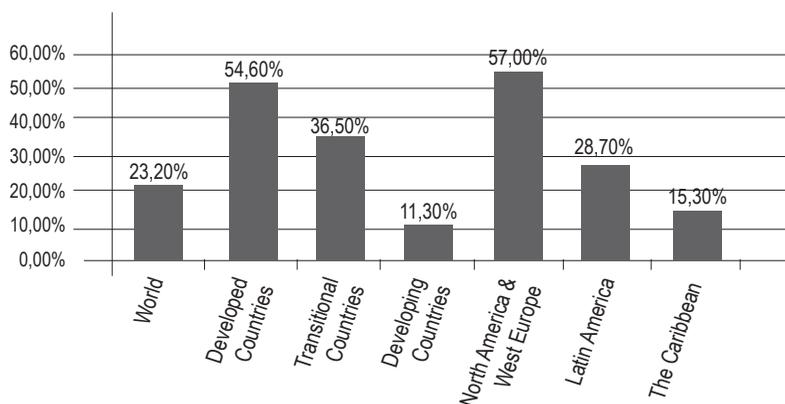


	Enrollment	Population (in thousands)	Population 20-24 years (in thousands)	Students in Higher Education per 10,000 inhabitants	Gross enrollment rate (enrollment / population 20-24 years of age)	Percentage of female participation in enrollment
Total Latin America & the Caribbean	13,991,517	541,914	49,266	259	28.5%	54.4%
Total Latin America	13,896,522	526,549	4,863	265	28.7%	54.3%
Total Caribbean	94,995	6,389	621	149	15.3%	68.0%

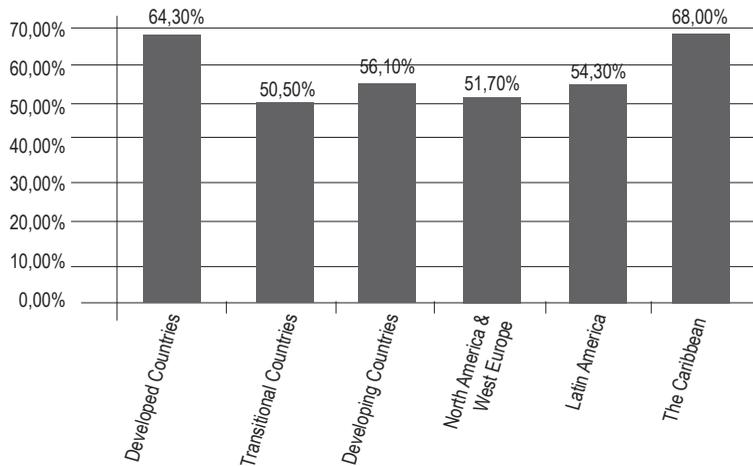
	Gross enrollment rate		Female participation in enrollment	
	1998	2001	1998	2001
World	20.7%	23.2%	...	...
Developed countries	45.6%	54.6%	59.2%	64.3%
Transitional countries	30.2%	36.5%	53.3%	50.5%
Developing countries	10.2%	11.3%	...	56.1%
North America & Western Europe	50.3%	57.0%	57.1%	51.7%

Source: UNESCO, EFA world follow-up report, 2005.

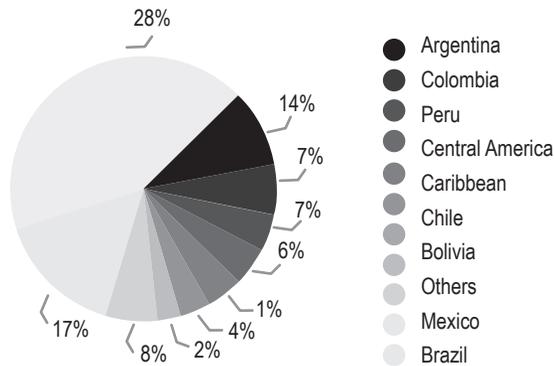
Gross Schooling Rate in LAC and the World



Female participation in enrollments: LAC and the world



ENROLLMENTS IN Higher Education IN LAC (2003)



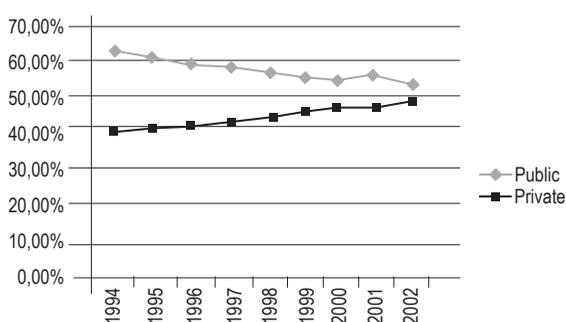
DISTRIBUTION OF ENROLLMENTS	
COUNTRIES	PERCENTAGE
BRAZIL	28%
MEXICO	17%
ARGENTINA	14%
PERU	6%
CENTRAL AMERICA	6%
CHILE	4%
BOLIVIA	2%
CARIBBEAN	1%
OTHERS	8%

60% OF ENROLLMENTS IN Higher Education IN LAC (2003) ARE CONCENTRATED IN 3 COUNTRIES (BRAZIL, MEXICO, AND ARGENTINA)

COUNTRIES	% PUBLIC AND PRIVATE ENROLLMENT
BRAZIL CHILE EL SALVADOR COLOMBIA COSTA RICA NICARAGUA DOMINICAN REPUBLIC	BETWEEN 50% AND 75% OF ENROLLMENTS ARE IN THE PRIVATE SECTOR
ECUADOR MEXICO VENEZUELA PARAGUAY PERU GUATEMALA	BETWEEN 50% AND 75% OF ENROLLMENTS ARE IN THE PUBLIC SECTOR
CUBA URUGUAY BOLIVIA PANAMA HONDURAS ARGENTINA	BETWEEN 75% AND 100% OF ENROLLMENTS ARE IN THE PUBLIC SECTOR

PUBLIC AND PRIVATE ENROLLMENT PER YEAR (1994-2002)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
PUBLIC	61.50%	60.50%	59.60%	58.90%	57.50%	56.50%	55.50%	56.00%	54.50%
PRIVATE	38.50%	39.50%	40.40%	41.10%	42.50%	43.50%	44.50%	45.00%	45.50%



THERE IS A CLEAR TREND IN LATIN AMERICA AND THE CARIBBEAN
TOWARD THE COMMERCIALIZATION OF Higher Education

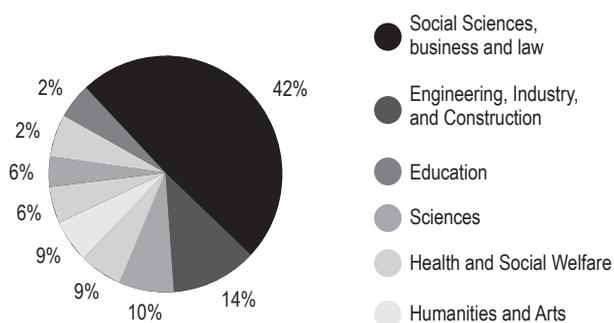
Distribution of enrollments by areas of knowledge 2002

Countries / Regions	Education	Humanities & Arts	Social Science, Business & Law	Sciences	Engineering, Sciences & Construction	Agriculture	Health & Social Welfare	Services	Sector unknown or not specified
Argentina	3.3%	7.2%	35.0%	7.4%	7.2%	2.9%	10.1%	1.0%	26.0%
Brazil	12.6%	8.9%	43.1%	11.1%	7.8%	1.8%	10.2%	3.0%	1.4%
Chile	12.9%	6.3%	34.9%	1.6%	31.4%	5.0%	7.9%	0.0%	0.0%
Colombia	11.6%	3.4%	41.6%	3.0%	29.2%	1.9%	9.2%	0.0%	0.0%
Costa Rica	21.7%	7.7%	30.3%	13.1%	15.7%	3.4%	6.2%	1.6%	0.3%
El Salvador	9.7%	1.4%	51.8%	10.2%	12.4%	0.0%	14.4%	0.1%	0.0%
Guatemala	13.0%	0.7%	43.8%	1.7%	17.1%	1.9%	6.3%	0.0%	15.6%
Mexico	11.3%	3.6%	41.7%	12.5%	18.6%	2.1%	8.0%	1.9%	0.3%
Panama	15.6%	7.3%	42.4%	3.8%	18.1%	1.2%	7.1%	2.8%	1.8%
Surinam (b)	38.0%	3.0%	35.1%	8.4%	10.1%	1.1%	0.0%	1.3%	3.0%
Trinidad and Tobago (b)	11.4%	12.3%	25.3%	14.4%	20.7%	3.5%	10.6%	1.8%	0.0%
Latin America & the Caribbean (a)	10.5%	6.5%	40.6%	9.2%	13.7%	2.3%	9.4%	1.8%	6.0%
Developer countries (b)	11.0%	15.3%	34.5%	12.7%	10.3%	1.8%	9.8%	2.7%	2.1%
North America & Western Europe (b)	11.1%	11.8%	40.0%	11.6%	14.0%	1.9%	8.3%	1.2%	0.2%
Central Asia (b)	14.2%	38.9%	20.5%	10.8%	7.5%	3.3%	4.1%	0.8%	0.0%
Central & Eastern Europe (b)	12.1%	8.5%	33.9%	7.1%	17.2%	2.8%	7.3%	4.1%	7.2%

Source: IESALC-UNESCO Data base, a) Data of 11 countries, representing 77 % of the regional enrolment, b) Data from 2001, taken from the report in EFA in the world, 2006.

DISTRIBUTION OF ENROLLMENTS BY AREAS OF KNOWLEDGE

AREA	PERCENTAGE
Social Science, Business, and Law	42%
Engineering, Industry, and Construction	14%
Education	10%
Sciences	9%
Health and Social Welfare	9%
Humanities and Arts	6%
Unknown or unspecified sector	6%
Services	2%
Agricultura	2%



57% OF ENROLLMENTS IN Higher Education IN LAC (2003) ARE CONCENTRATED IN THE SOCIAL SCIENCES, BUSINESS, AND LAW; ENGINEERING; AND INDUSTRY

RESEARCH

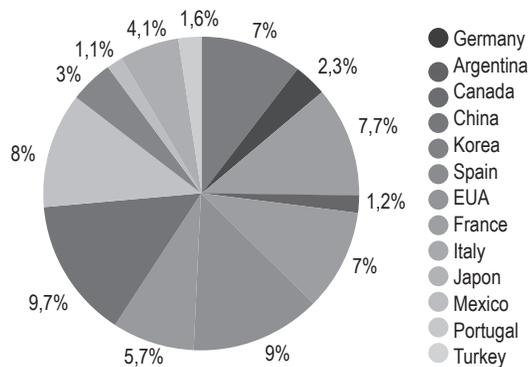
CURRENT SPENDING PER SECTOR IN LATIN AMERICA 2005		
PERSONS	GOVERNMENT	10.00%
	COMPANIES	23,3%
	Higher Education	65,1%
	PRIVATE NON-PROFIT ORGANIZATION	1,7%
EQUIVALENT TO FULL-TIME	GOVERNMENT	13,4%
	COMPANIES	33,4%
	Higher Education	50,9%
	PRIVATE NON-PROFIT ORGANIZATION	2,3%

RESEARCH IN LATIN AMERICA & THE CARIBBEAN

RESEARCHERS	
PERSONS	342,179
Equivalent to full-time	211,260
SPENDING ON R&D PER RESEARCHER IN THOUSANDS U\$S	
PHYSICAL PERSONS	39.15
Equivalent to full-time	63.41
RESEARCHERS PER 100 EAP, 2005	
PERSONS	1.42
Equivalent to full-time	0.87
SPENDING FOR SCIENCE & TECHNOLOGY COMPARED TO LATIN AMERICAN GDP 2005	
Science & Technology Activities	0.71%
Research & Development	0.54%

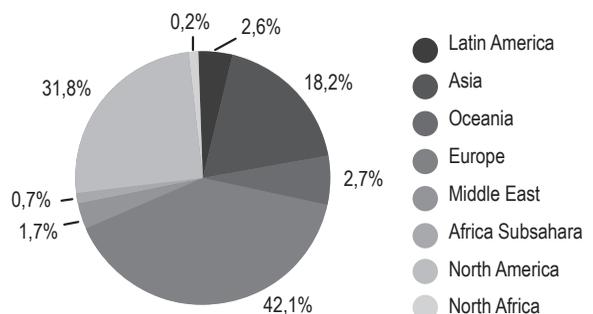
RESEARCHERS PER 1,000 OF EAP BY COUNTRY

COUNTRY	RESEARCHERS x C/1000 (%)
Germany	7
Argentina	2.3
Canada	7.7
China	1.2
Korea	7
Spain	9
USA	5.7
France	9.7
Italy	8
Japan	3
Mexico	1.1
Portugal	4.1
Turkey	1.6



SCIENTIFIC PUBLICATIONS IN LATIN AMERICA AND THE WORLD (%)

COUNTRY	PERCENTAGE
Latin America	2,6
Asia	18,2
Oceania	2,7
Europe	42,1
Middle East	1,7
Sub-Saharan Africa	0,7
North America	31,8
North Africa	0,2



MAIN INDICATORS IN R&D

	Argentina	Chile	Colombia	Mexico	Panama	Peru	Uruguay	Venezuela
Years considered	1992-1996	1995	1993-1996	1994-1996	1999	1997-1999	1988	1994-1996
Number of firms surveyed	1,639	541	885	1,322	849	8,972	261	1,382
% of firms with R&D departments	18	22.3	12.7	21.7	35.7	5.5	17.8	15.8
% of companies that have developed innovation activities	72.6	66.2	75.4	63.4	33	8	63.6	60
% of companies that have developed R&D activities	37.9		23.9		18	1.8		29.1
% of firms that have carried out production improvements	71	34.2	50	52.6	20.8	48.4		59.3
% of firms that have carried out improvement processes	71	37.6	70	51.3	19.4	71.7		72.5
% of firms contracting consultants	20.1	30.3	63.8			61	49.6	9.8

Source: The state of the Science. Main Indicators of Science and Technology Iberoamerican / Interamerican 2001, Iberoamerican Network of Science and Technology (RICYT), Buenos Aires, 2002.

Chapter 2

OVERTAKEN BY THE FUTURE: FORESEEABLE CHANGES IN SCIENCE AND TECHNOLOGY

*Hebe Vessuri**

Contributors**:

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* Irene Plaz Power and Isabelle Sánchez Rose have collaborated in this text.

** EDITORS' NOTE: the contributors' complete texts in their original version are included in the CD-ROM Trends in Higher Education in Latin America and the Caribbean. Contributions to the summary documents, attached to this volume, and can also be downloaded from the web site: www.iesalc.unesco.org.ve

Where are we? Where are we going? What strategies can we utilize in order to move forward in the development of our societies? At the beginning of the 21st century, questions such as these are at the foundations of the collective interest when reflecting on the trends of Higher Education over the coming 20 to 30 years. Such reflection necessarily includes scientific and technical dimensions, for science and technology prepare the way for changes to come. The main purpose of this chapter is to comment on predictable changes and their impacts on Higher Education and on our societies in the Latin America region.

When thinking about the future, references to science and technology have historically been accompanied by the idea of progress and of utopian thought. In the 20th century, however, the proximity of scientific and utopian visions led, paradoxically, to the suppression, at least temporarily, of utopia as a literary genre. For a considerable time, science fiction has replaced the notion of utopia in literature (Schaff, 1985). This is probably because science has been seen to be so eminent and clearly realizable that it seemed better to present it in a realistic and historic guise rather than for it to be associated to the wilfulness inherent in the utopic vision (Kumar, 1987). However, due to increasing uncertainties and the speed of change there has been a resurgence of thought about the future that frequently proposes the reconstruction of society in terms different from current ones.

Thus it continues to be important to imagine possible and desirable futures when we examine trends. However, a disturbing and certainly relevant question is, how may we identify possible and desirable “techno-futures”? And once we have done so, how may we understand their scientific and institutional extensions and their social ramifications? In particular, given our characteristics as consumer countries of science and technology, what autonomy and what alternatives are available in the construction of our futures?

It has been argued at least since the first third of the 20th century (Husserl, 1929; Schumpeter, 1939; Merton, 1948), that social science theories can be confirmed to the extent that their assumptions and language are taken as given, are valued normatively, and therefore create conditions for them to become “true”. In this way, such theories can “win” in the market, independent of their empirical validity, perpetuating themselves to the extent that they offer a language and assumptions that are widely used and accepted. In contrast to biological evolution, cultural evolution re-structures observations of the past, and writes the present through interactions between anticipatory dynamics. Representations, visions, promises, and even ethical discourse, have an enormous importance in the development of the trends and agendas of techno-futures. Giddens has suggested that social science cannot be completely separated from the reality that it attempts to explain because there is a mutual interpretive interaction “between social theories and those activities that make up their subjects – a double hermeneutic”. Actors see the world through the lenses of social theories, and social theories are constructed by making use of the categories and meanings of the actors.

With this, we do no more than emphasize the frequently circular character of the analysis of trends and agendas and the way that some of them come together in techno-futures and become part of technologies and artefacts that confirm agendas, which in this way result in self-fulfilling prophecies. There is a specificity of knowledge in the modern world that consists in its ability to codify meanings, and in this way reduce the uncertainty in the (collective) representation of the social system, becoming increasingly selective in terms of the information that is retained as relevant. Through time, this provides an ability to provide informed expectations of possible futures that then re-nourish historical processes. It is precisely this reflective and anticipatory capacity that explains the stability of the evolutionary trajectory of the knowledge-based economy (Leydesdorff, 2006). We could define the techno-present as that which points to certain aspects and problems as the major problems to be resolved through specific technological responses. This leads to a techno-future that justifies its solution as revolutionary, thus legitimating the spending of (public and private) resources in specific activities, and obtaining adhesion in the trajectory of multiple agendas.

In order to achieve it, the future and its techno-scientific solution come together in a specific way, not only to reflect the problem implicit in the present, but also to transmit the impression of inevitability and lend an obvious character to the solution of the future. Such “inevitability” is produced by the overlapping of agendas in concrete artefacts although they may appear to be freely adopted through the elimination of alternatives. Usually, the forces behind technological visions of the future construct the conditions for their realization so that these are verified in facts. The fostering of particular agendas as rational and coherent induces, in fact, a specific technological future, both in scenarios and policies, as well as in particular practices, while leaving aside other possible futures. Representations, visions, and expectations are an integral part of this development, existing as an aspect of technology.

This occurs whether we are dealing with medicine, information and communication technologies (ICTs), materials science, or convergent sciences, to give only some examples. Thus, in regard to medicine, the notion of individualized prevention and treatment is based on the conception of humanity extracted from genetics, genomics, and other bio-sciences that divide our bodies into constituent parts (for example, genes, genomes, cells). Other examples, also from modern bio-medicine, are the technologies and artefacts of genetic screening that help to produce a perception that there are “undesirable” characteristics that individuals need to verify and then correct, whether or not there are means to do so (Birch, 2006). The particular agendas of scientists, companies, universities, and patients can benefit from this scientific orientation and direction. Scientists who work in these fields in the more industrially advanced countries are well paid for their efforts, both materially (i.e., actions) and socially (i.e. status). For their part, public and private organizations are compensated through changes in the institutions of intellectual property (for example, the Bayh-Dole Act, 1980, in the United States) that reinforce an individualistic and proprietary understanding of research which assures the legitimacy of the private appropriation of what is a valuable intellectual property. Finally, groups of patients are compensated when they are able to build public awareness, with investments in research of their particular illness or disorder, motivating other groups to follow similar strategies.

At the heart of these representations is the implicit competitive, stratified nature of science, although its development in a direction in which it appears increasingly as a power structure highly skewed toward small concentrated groups of authority and power is less present in discussion, and in large part passes unmentioned and questioned. Clearly, the scientific control structure affects and is affected by representations of the future. In this way, we contribute and develop prophecies that take place at a certain level of reality, and in which prescribed policies and decisions reinforce the original theory, “proving” its exactitude. If we speak of the biosciences in terms that corroborate the expectations of individualized lives and private bodies, then our descriptions can foster a particular socio-economic system (i.e., private appropriation) that reproduces certain cultural expectations (i.e. individualism). If we speak of nano-technologies as being “imaginary techno-scientific”, that is, untested and tacit assumptions that lend form to development of the field, these concepts are not simply concepts in the sense that they are fictitious; rather, they define the resources of discourse through which the field finally defines itself. In societies with scant margins of freedom such as ours, which do not have vigorous science and technology in this phase of global economies, the question should be posed and answered if we wish the research being done to foster these agendas, and if not, how one can avoid doing so.

What does all of this mean? Why do we believe that it is important? Because we face the double hermeneutic of which Giddens speaks, in which the growing complexity and the strengthening of the reflective dynamic that increasingly rapid communication media make possible, lead to an exchange of knowledge in which the role of the agents is much more decisive when describing the world, modifying it through theories that prescribe particular focuses in order to understand it, which stimulate and endorse particular policies and decisions. These concerns underlie this chapter in which we examine, among others, some of the ideas outlined by a set of authors who have participated in the Trends Project. We have chosen to concentrate on the analysis of particular themes: the stratified and hierarchical structure of science; the new technological convergence, particularly of nanotechnologies, the bio-sciences, and ICTs; the role of e-science and its impact on Higher Education; the production and consumption of knowledge; and the type of “science system” fostered to support the search for sustainable development. Higher Education is the depository, scenario, and eventual catalysts of these and of other possible developments. Almost without exception, the countries of the region are in the midst of a complicated transition, with paths that sometimes divide, while others return to where they began or lead to nowhere, thus making it difficult to interpret and see future roads. An essential aspect is to try to identify among trends, those features of universities, industries, and governments, including their functional interfaces such as financing agencies of technology transfer offices, which could be re-interpreted and redefined in the coming years.

1. Institutional transformations in the new global context

Unable to adapt itself to the extent required by the progressive changes of the 20th century, Higher Education will be witness to a radical transformation in the coming decades. For years, the assimilation of new knowledge to that codified in basic science generated a particular form

of perception according to which this “good”, once produced, was very difficult to appropriate. This view had two important consequences. The first was that economic decision-makers did not invest in basic research, due to the expectation of not recovering their investment. Thus, the need for governmental support. The second consequence was that the appropriation of knowledge and its circulation were “free” for interested economic actors. There was no need, therefore, for specific mechanisms that could help knowledge to flow from where it was produced to the economic and social spheres.

The result was that universities were long seen as institutions for preparing the future through the formal production of knowledge and through training the elite. Moreover, this professional elite was the only one in a position to decide what to do and how to judge the quality and relevance of what was done in terms of scientific research. Gradually, it was recognized that the reality outside the walls of universities was not so simple, and was slowly creating varying numbers of intermediate structures destined to fill the gap between basic research and development. As we approached the present, the understanding of the process of innovation changed, going from had been called the linear model of innovation to one of networks, with notions such as techno-economic networks, and distributed, or open innovation processes. On the way, universities, or more precisely groups or individuals within Higher Education, became interested in participating in the benefits of their research inputs, thus contributing to institutional change.

The last two decades have witnessed the growth of scientific and technological parks, incubators, fiscal incentives, multiple initiatives for providing seed capital, risk capital strategies, and incentives for academic personnel to commit themselves to such activities. The list of initiatives focused on such activities is a long one, although still not fully satisfying expectations (Laredo, 2007). In the industrially more advanced countries there is talk of an business-related “third mission” of universities, besides that of teaching and research, although historically, Latin American universities had a long tradition of public service in a third mission that was defined as “extension”. There is much ambiguity in the current re-definition of “extension”; there is talk, for example of dimensions such as:

- 1) The transfer of knowledge incorporated in doctoral students and graduates (the transfer of trained skills through research in industry and public services guided by missions).
- 2) Intellectual property, understood as codified knowledge produced by universities and its management (patents, copyright).
- 3) Spin-offs: knowledge transfer through enterprising.
- 4) Contracts with industry through the co-production of knowledge and its circulation to industry. This is taken to be the major mark of attraction of universities for existing economic actors.
- 5) Contracts with public institutions, in order to satisfy the public service dimension of research activities.
- 6) Participation in the development and/or implementation of policies (at different levels).
- 7) Involvement of universities in social and cultural life (essentially of urban areas).
- 8) Social understanding of science through interaction with society (Schoen et al, 2006).

In any case, it seems clear that these are only manifestations of a transition toward

something radically different that could become visible in the coming years, linked to basic changes in the legal base and in forms to produce, treat, and store the new knowledge through the transformations produced by the new technologies. Paradoxically, in these time when humanity can accede as never before to universal tools of communication, when the possibilities of production, use, and storage of information, education, and health increase drastically; in a word, when human intelligence, memory, and inventiveness is revolutionized, we face a heavy burden of marginality and exclusion of a large portion of humanity that places at risk the attainment of a clearly better future if the obstacles of the present are not overcome.

Currently, with the enthusiasm of converts, various countries have launched themselves on a frantic search for profit; eastern Europe, China, India, and in our region, Mexico, are examples. What is going to happen with the trends toward commercialization of university life in the world, and particularly in Latin America? Public universities are being pressured to re-direct their activities and their resources toward the production of marketable private goods. The market orientation as a final purpose and means of survival of institutions of Higher Education is being imposed on public policy and university practice, introducing a series of concepts and notions the adoption of which is problematic and sometimes traumatic. Masses of human beings in these same countries are being expelled from their lands due to competition with industrialized agriculture and end up on the streets of cities, with neither the possibility of returning to the countryside nor being integrated into modern, technological society since they do not have access to effective education. Their levels of needs and lack of prospects not only generates a hell on earth for them, but also converts them into a source of insecurity that permeates urban life.

It is probable that the coming years, with a resonance of what happened at the peak of the first industrial revolution, will witness “refugees” of thought in society, places that provide space and time for deep and critical thinking, in contrast to the increasingly accelerating pace and massive publication of papers that when not trivial, are increasingly fixed merely on the topical issues. Recently, when Serres (2007) stated that “the new technologies condemn us as a species to become more intelligent”, this philosopher was referring to the information revolution that effects and changes our relation with the world and generates a cognitive and cultural transformation in the faculties of memory, imagination, and reason that once externalized, and thus liberated, grow vertiginously. The convergence of this process with that of globalization, environmental problems, the high-risk society, and the growing gap between those who learn and those who do not will create a gradual demand of institutions that seek to understand what happens in nature and in society and probably cause “slow and profound learning” to be spontaneously reborn in the coming years.

For various decades, the use of labour resources was persistently discouraged in the developed world. Although the growth of the productivity of labour was an important element that contributed to the continued increase in per capita net income, a critical level was reached. On the one hand, the substitution of work by capital has been accompanied by a continued increase in the use of energy and primary materials, leading to an over exploitation of environmental resources. On the other, business strategies are driven by considerations of labour savings to the point at which the earnings of productivity at the business level is neutralized by an increase in the costs to society. One of the clearest examples is unemployment in indus-

trialized countries, where the labour force becomes redundant, but at the cost of an increase in unemployment benefits. The financial demands of social security programs increased even more the indirect costs of the labour force, intensifying trends toward reducing the work force. Moreover, as in Germany and France, this mechanism has led to a considerable loss in competitiveness in foreign markets, while sophisticated technology is increasingly in place in countries with low salaries.

Inappropriate use of available resources – not taking advantage of the labour force, too much use of environmental resources – clearly does not coincide with the preferences of society. People expect for themselves and for their children more jobs and a stable income on the one hand, and also a better quality of life on the other. Although economic models have tended to see technological achievements as exogenous factors, it should be recognized that they are essentially the result of incentives that come from public and private sectors. Moreover, technology is made by human beings, and in this sense, the continued investment of human capital is critical. The fundamental inefficiencies that are at the basis of the economic and social problems that trouble the Latin American region can improve or worsen in the coming decades. The dilemma is whether the change will occur in terms that do or do not reproduce the exclusivism (exclusionism) of the past and of the present, because these will be increasingly unsustainable.

In spite of the partially or totally failed experiences of diversification in the past, it is necessary to continue to think about diversification and differentiation strategies of the production of knowledge that do not reproduce the stratification and systemic rigidity that have accompanied many of these experiences. They will undoubtedly be complex strategies that will seek to solve and overcome the pedagogical crisis and the spatial restriction at the specific and limiting locus of the classroom, in the search of a pertinent and efficient use of the pedagogical instruments and devices of the future. Content will be increasingly accessible on-line, and education will no longer consist of “transmitting knowledge”, for education itself will be re-invented. Its major challenges are linked to the predictable development of a society that needs new behavioural aptitudes (the spirit of initiative, ability to work in teams, polyvalence, mobility, etc.) the importance of which will grow in the workplace in detriment to the education model of the developed countries developed since the end of the 19th century. The content of education has become increasingly abstract, with little relation to practical knowledge, and functioning as a filter of social selection. In Latin America and in the rest of the world on the periphery, former colonies or not, there are increasing attempts for countries to construct their own institutions of Higher Education, imitating the models of the developed world, and trying to share the same style and standard of life, instead of seeking to solve their practical problems by being more original and creative. But attempts are also growing to try to invent a new culture, opposed to violence and to protect nature.

From its present state of relative and absolute backwardness, Latin America shows signs of wanting to establish the bases for achieving greater international competitiveness, based on the design and implementation of legal instruments in which business, State, and academic sectors can converge, joining forces in what may be called *an innovation system* to be expressed in each country (CEPAL, 2004). It is recognized that the generation and adoption of technology and the consequential achievement and improvement of

international competitiveness are systemic processes. A system of innovation depends on a set of synergies and externalities of various kinds, but beyond the maximizing reactions of firms in the face of changes of incentives (*idem*). In effect, most countries of the region argue on the pronouncement level that there is a need to develop technical innovation practices as a way to improve their productive systems, broadening the bases for exchange between different economic sectors and actors. It is particularly proposed that each society become more competitive in different markets, both on the national and international levels. However, although innovation has been a common practice of some companies and laboratories, and has even been the subject of study and discussion in employment research centres, it has not been a subject that has been explicitly assumed by the majority of legal structures of the region.

The recent interest of some governments in introducing technological innovation practices is differentiated, with notably greater progress in countries such as Brazil, Argentina, Chile, Costa Rica, and Venezuela in terms of creating conditions for its induction, and thinking of further increasing the scope of the socio-economic actors involved. This can be appreciated in the establishment of legal and structural contexts that make possible implementation. This interest has been manifested principally within the last five years, and undoubtedly seems to be due to the need to increase the competitive capabilities of the economy and the modernization of mechanisms of production. However, all countries face difficulties in their respective capacities to carry out R&D and to link scientific, business, and industrial communities. On the other hand, there is little tradition of close relations between communities of researchers and the local problems of their respective countries. This, without taking into account the fact that internal investment in regard to R&D of each country has traditionally been low.

The MERCOSUR Council, in its meeting of May 5, 2005, in Asunción, Paraguay, created a committee of high-level government personnel responsible for the subjects of science, technology, and innovation. The Council also considered the need for greater study on a common policy on these questions in this multilateral agency. In its first article, the MERCOSUR Council decided to create a “Meeting of Ministers and Higher Officials of Science, Technology, and Innovation of MERCOSUR” with the function of proposing to the Council through the Common Market Group, measures aimed at coordination and cooperation in the field of science, technology, and innovation within MERCOSUR. It remains to be seen if these measures haven’t arrived too late, and if they are sufficiently supported by the necessary commitments on the parts of governments and societies in the region.

2. Changes in the control and authority system in the field of science?

Open access trends

The system of control and authority in the field of science has changed in nature through time and place. Observable trends suggest a significant transformation in existing arrangements. The division between hegemonic, or “mainstream” science and that on the “periphery” that was solidified in the 20th century reflects a contingent reality that assumes specific forms of organization and control. The prestige structure and the consequent exercise of power in

science takes various forms: directing an important laboratory is one of them, editing a leading journal is another, coordinating a committee that allocates research funds is a third. Overcoming existing divisions and inequities requires transforming the currently reigning hierarchical structure of science.

Since the assumptions of science are universal, that is, it is assumed that its results apply in equally everywhere, scientists tend to easily extend this basic principle to questions of method and even to the level of values and criteria for judging their production – thus creating a global competitive field on the basis of universalism. Undoubtedly, publications are perceived as the most important mechanism for regulating the international system of science competition. They incorporate a substantial amount of power because they form the basis for career management everywhere and are constantly on the minds of scientists, if only to monitor the progress of competitors.

Up until the last decade of the 20th century, the transition in Latin America from a principally national role to an international one could still be thought of as a gradual change and not as an abrupt and discontinuous one. Until then, the two levels – national and international – were seen as a structure to be developed, and not a barrier to be overcome, with variations according to the field of knowledge. However, after World War II, some publishing houses were quite skilful in moving beyond the national scenario and to become multi-national companies. The establishment of English as the *lingua franca* gave them a competitive advantage by permitting them to reach a much broader public, and having to deal with only one language. At the same time, the rapid increase in the quantity and size of universities during the same period marked the appearance of a world market for scientific publications. The international level has come to function increasingly as the major arbiter of quality, while the national level includes more complex mixes of assessment, linked to political questions that have become part of the national level, since many governments seek to domesticate the power of science in order to improve the well-being of the country.

The concentrated nature of authority in international science has increased in recent decades. This influences not only journals, but more insidiously still, the themes that come to be stratified as well according to an international scale of prestige. Since 1960, the Social Citation Index (SCI), although in the beginning limited to a few hundred titles, could offer with credibility what seemed to be a good representation of “core science”. Based on statistics, the list of titles used by the SCI rapidly came to enjoy great credibility. With its numerical counting mechanism, SCI essentially created a barrier between the national and international categories. It radically separated what it called “core science” from the rest of scientific publications, and assumed for itself the task of deciding what publications could or could not be included in the SCI list. In this case as well, the prophecy was fulfilled. The large publishers had maintained firm control over the size and the nature of core science. Essentially, this has been one of the principal roles of SCI during the last 40 years. A private company – Thompson Scientific (known previously as Thompson ISI) – unilaterally and to a large extent without having to be accountable, has come to decide how many titles of journals to include in its basic list, and everyone has accepted its decisions. Increasingly, librarians began to make the purchasing requests for their libraries by using the SCI lists. With this, purchasing standards began to converge,

generating a rigid market.

The development of the Open Access alternative can in fact be seen as a response to the process through which the slope became a barrier (Guédon, 2007). Strategies directed at stimulating open access may be understood as a function of this control structure. It is difficult to imagine, except rhetorically, how the promotion of open access could be divorced from the search for a different power structure in science. This issue is particularly important for the emerging and developing countries in Latin America. The discussions and tensions around SCI make more credible the argument that one of the major functions of SCI is to adjudicate the hierarchical order of journals in such a way as to preserve the current cartel-like structure of scientific publication. This role is rarely discussed, hidden as it is by all of the bibliographic and science measurement functions of SCI. But without SCI, the concentrated structure of scientific power would not exist as it is, and would not have lasted so long. Obviously, international scientific communication has fallen under the control of a few journals of a few western countries, creating a competition to try to publish in journals belonging to a set of defined titles and controlled by Thompson Scientific. Very rapidly, peer assessment, the allocation of subsidies, support for attending international conferences, all came to fall under complex mechanisms controlled by this particular filter system. But that is not all. The way that people cite is filled with an anti-developing country bias. The problem is not a trivial one.

Some countries outside of the “mainstream” make efforts in various ways to solve or to minimize these problems. Brazil is one of these in our region. CAPES/MEC (the advanced personnel training coordinating body of the Ministry of Education of Brazil) has, since the year 2000, maintained a science information portal which is an easily accessible on-line library of world information on science and technology, offered by the Brazilian government to graduate programs linked to the national education system. In this way, more than 1.3 million teachers, researchers, undergraduate and graduate students, and technical-administrative personnel of institutions from all regions of Brazil have free access to the portal via the internet, administered by the National Research Network (RNP). The costs of this tool for national scientific development are covered by the national government. Between 9% and 10% of the CAPES annual budget is aimed at maintaining and developing the portal. The cost was US\$32 million in 2006 (Guimarães, 2007). The continuity of this effort in coming years very probably will guarantee Brazil consolidation in the growth curve of its scientific production and productivity.

Together with this costly internationalization effort in conventional terms, Brazil is experimenting with other options such as Scielo, an electronic library that began by covering a selected collection of Brazilian scientific journals and that seeks the development of a methodology for the preparation, filing, dissemination, and assessment of scientific literature in electronic form. As the project develops, new titles are added to the library collection. Scielo makes possible the implementation of digital web libraries of complete texts of scientific journals. As a result of policies of regional integration, there are already various Scielo portals that provide access to academic journals of Brazil and of other countries of Latin America, the Caribbean, Spain, and Portugal, fostering the visibility of a literature that otherwise would only be accessible within the borders of these countries. Scielo responds to a strong institutional policy. It is an example of an activity that is based on sustained governmental support. As with Scielo

portals, the decision of many universities and other research institutions to add value to collections or archives of refereed papers, and with the effort of countries such as Australia, the Netherlands, the United Kingdom, as well as Brazil, to develop national repositories, it is now possible to think about a removal of the barriers, or at least their reduction, improving the communication infrastructure of the world science system. Persevering in this direction would correct many of the inequities and injustices that have come about as a result of the current barriers of knowledge between the “centre” and the “periphery”.

Another complementary initiative is that taking place with the coordination of UNAM of Mexico through Latindex – a regional on-line information system for scientific journals of Latin America, the Caribbean, Spain, and Portugal. This is the product of the cooperation of a network of institutions that function in a coordinated manner in order to bring together and disseminate bibliographic information on serial scientific publications produced in the region. The system seeks to disseminate, make accessible, and raise the quality of the serial scientific publications in the region by using shared resources. To this end, it coordinates activities of copying, processing, dissemination, use, and production of scientific information, and places at the disposal of users three basic information products: a *Directory* that provides normalized data of a wide variety of academic journals or those of academic interest. Today, it contains more than 14,500 entries; the *catalogue*, with descriptive information and additional content to that contained in the Directory for selected titles, classified according to international quality criteria previously proven and agreed upon by the Latindex System; and a link to electronic journals, currently under construction, that in its first phase will provide access to more than 2,500 journals with complete texts on-line.

Initiatives such as these represent an internationalization that is of a different kind from that of the present – not subordinated to the dichotomy between mainstream and peripheral science, and enlarge important functions such as access to information and communication. The appearance of the Open Access movement opens new perspectives, playing different roles for different categories of scientists. For everyone, whether from wealthy or poor countries, Open Access offers more opportunities to build on the work of predecessors and colleagues/competitors of the entire world. Scientists as readers are well-served by Open Access, and for scientists in poor countries, if internet connections are available with sufficient band width, the information gap under which they work will tend to decrease with the growth of Open Access. An Open Access journal from any field has more opportunities to be used everywhere than a paid journal, and the growing power of various Google search engines, particularly Google Scholar and Yahoo will only increase possibilities in this regard, and in fact to level the playing field that high-cost bibliographies (such as SCI) have made uneven. For the developing world, this means that Open Access journals can cross the line more easily than before; even though they still may not be listed in the SCI, and in general they are not, their presence in Open Access lists, and their availability in well-organized portals will begin to compensate for the limitations that barriers of the cartelized system of science has raised, in particular around SCI.

Open Access opens the way to research around the dynamic of innovation in huge and interdependent areas such sociology, economics, or management, as well as for the hard sciences and technology itself. The notion of Open Access is no longer considered to be a simple metaphor for the engine of transformed societal and organizational relations. Thus, the sharing of

knowledge and resources, for example, between structures in direct mutual competition, that yesterday seemed to be nearly inconceivable, now appears to be much closer to taking place, simply by taking Open Access in the non-restricted sense of the term.

3. The new convergence of technology

The so-called “convergent technologies” are part of the contemporary dynamic of scientific and technical development. The term refers to the synergistic combination of different transforming technologies: (a) nano-science and nano-technology; (b) bio-technology and bio-medicine, including genetic engineering; (c) information technology, including communications and advanced computing; and (d) the cognitive sciences, including cognitive neuroscience (nano-bio-info-cogno, NBIC). They comprise the combination of knowledge for the manipulation of live with inert matter (ETC, 2003), with the final objective of having a direct impact on structural sectors of the economy, political, social, and environmental.

In the view of the group of specialists of the European Commission on the wave of new technologies (the rapporteur was Nordman, 2004), the paradigm of convergence has changed with the arrival of nano-technology, since with it, matter, composed of molecules, can be reconstituted practically anew through nano scales. On the nano scale, matter exhibits properties different from those traditionally known on the macroscopic scale. Making use of these properties in the implementation of features, in the formation of new materials, in their methods of manufacture and in production, is only one of the proposals of this emerging paradigm which seeks to transform societies during the coming decades. The convergence of transformational technologies is founded basically on the unity of materials at the nano scale, and on technological integration through it.

Such promises are reflected in the declaredly “futuristic” focus of a good part of the rhetoric of nano-technology, with the development of long lists of possible applications that are so broad as to seemingly cover the cure of practically all evils of humanity and support for future human growth and happiness. These views reflect the fact that what is social is an integral part of nano-technology. That is, in regard to “future techno-prospects”, such as that offered by proponents of nano-technology, the future is mobilized in the development of technology and its governability, creating “directionality” and convincing others that “the future will bring it”. As such, the various narratives of nano-technology appear to be profound and irrevocably social, political, and philosophical.

Recognizing its enormous potential, various countries or groups of countries have moved forward in formulating proposals for intensely developing convergent technologies. Power actors imagine nano-technology as a paradigmatic reorganization of research techniques and abilities on a nano-scale with a potential to provoke broad and transformational social, economic, and political implications (Roco and Bainbridge, 2005). The social, cultural, moral, political, and economic visions that accompany the promises and threats are creating, in unequal and complicated ways, research trajectories and agendas that will determine the eventual form of nano-technologies.

Public and private research in this field is developing in giant steps, and at the moment finds itself out of control of the regulations of governments and the scrutiny of society, even where there are governmental programs and projects. It is particularly important that both

governments and civil society have an understanding and exercise monitoring, for otherwise, the products of the convergent technologies will move into the market in processes that lack transparent and democratic processes of review, assessment, and regulation (ETC, 2003). For this reason it is necessary, from the point of view of Higher Education and social analysis, to examine and interpret nano-technology and other related fields that share with it the generic social, economic, and political dynamic, not only as an emerging field of scientific research and experiment, but also as being constituted through the unfolding of a range of discursive repertoires of promise and expectation. In our case, we seek to move the discussion from trying to *see in* the future to *seeing how* it is that one can construct and manage the future both as temporal abstraction in heated discourses, as to who develops these discourses and under what conditions, as a prerequisite to the construction of development strategies for the Latin American region.

Although among the promises that are said to be valid for developing countries are possible applications of nano-technology related to the Millennium Goals, such as the production, conversion, and storage of energy, improvements in agricultural production, water treatment and recovery, diagnosis and monitoring of diseases, systems for launching drugs, processing and storage of food, air contamination and recovery, construction, health monitoring, detection and control of vectors and pests (Salamanca-Buentello et al, 2005), these are not all promises. In the dominant “it is inevitable” discourse, it would seem that the public policies and governance systems in developing countries face new and difficult challenges in order to be able to generate and use this new knowledge and to introduce or adapt it to social and economic goals.

It is predicted that the production of new materials based on nano-technologies and other convergent technologies can have negative effects on the economies of developing countries by permitting the substitution of raw materials for more economic products free from geographic and/or climatic limitations, thus increasing the differences between countries of the North and the South. Some studies (ETC, 2003; Meridian Institute, 2006) note that unequal economic and social relations between the countries of the North and the South may be affected even more with the introduction of new materials such as, for example, textiles better than cotton, that would affect the production of the commodities of a very large number of countries. Note that of a total of 141 developing countries, 95 of them depend on their commodities for at least 50% of their export earnings (CFC, 2005).

In the countries of the region, it is possible to find, especially among scientific communities and policy decision-makers, other actors directly interested, as well as different organizations that have increasingly important roles in the discussion and definition of policies and, naturally, in the building of public awareness on the impact of technology. Many of these actors, however, do not clearly understand the impacts of new knowledge. Consequently, they increasingly make public policy decisions based on incomplete, fragmented, and poor information, or due to the influence of institutions and “experts” that are inadequately prepared to understand and to face the challenges presented by transformational and convergent technologies. In this terrain, the function of universities and of Higher Education is crucial in the transition phase.

Facing the “challenges of technological convergence” will require a coordination of efforts among universities, the productive sector, and governments in order to develop appropriate

instruments of regulation and monitoring able to guarantee the protection of the population and of nature. A highly important issue is that regarding the risks of nano-technology. There is a diffused perception of the risks in the research and use of nano-technology. Consequently, there exists a great dispersion of recommendations in order to generate skills that will make it possible to face these risks. Frequently, the scientific community does not conceive risks as an inherent dimension of the research activities that it carries out, and when it does perceive them, it identifies them as an ethical problem that should be assumed by the corresponding entities.

In general, the narratives that key actors offer in their attempts to give meaning to the social dynamic of emerging technologies are taken as given. It has been argued that scientists and technicians have developed a set of informal theories in regard to what nano-science is. But there is still discussion regarding what positions should be taken, how to express public concerns, the lessons that could be learned from the controversy regarding genetically manipulated materials, etc. It would appear that, while these informal theories lack systemic empirical support, they do however direct expectations and promises, both in policy deliberations as well as in innovation and R&D. Representatives of NGOs call for more attention to the implications of nanotechnology for the developing countries and emerging economies.

There is a need to more systematically consider how nano-technology could contribute to reducing poverty, and how the processes of global innovation could be linked to local processes in developing countries. Some emerging economies are struggling with the themes of nano-technology. On the one hand, political institutions point toward attracting foreign companies. On the other, there is a need to develop legal frameworks that provide protection to the population and that also assure the legal stability of the companies. The major questions here are to do with the environment, health, and safety, as well as intellectual property rights. In general, the actors in emerging economies are in a different position than those in highly developed countries. The academic domain, for example, has less possibility of carrying out environmental health and safety studies and/or having effective communication with the public. The emerging economies frequently depend on foreign leadership, and public awareness of nano-technology in developing countries is very low (Renn & Walter, 2008).

Some organizations have pointed out the need to apply precautionary principles to nano-technology. But, what constitutes a precautionary focus? In recent years, faced by the growing scale of changes and human impact on the environment, and with the increasing awareness of its complexity, it has become increasingly clear that science and human knowledge in general cannot provide definitive evidence beforehand in regard to all possible forms of damage. Such evidence may be intrinsically unattainable, or arrive too late for avoiding serious and irreversible environmental damage. Considering the needs of policy decision makers when facing uncertainties, trying to balance divergent proposals and objectives, precaution has become a broad principle that favours environmental protection in the case of uncertainty.

The core of the concept may be understood as *counteracting the presumption in favour of development* that predominated for so long (Cooney, 2005). In any case, it seems important to find a balance between this principle, applied through systematic assessment of long-term risks, and an ethical approximation of true short-term benefits. Latin American countries should consider that the precautionary principle requires that governments have at their disposal efficient human resources and research infrastructure and laboratories, and thus be able

to decide about capacity building for its implementation. The importance of an open and transparent analysis of these socio-technical possibilities, projections, and cultural repertoires is doubly significant when one considers that nano-technology potentially challenges notions that are deeply rooted in humanity and nature, among others through notions such as the “new material invisibility” or the “incredible smallness” of the nano scale.

The convergence seen as well in the “new bio-informatics” could be of special interest to the region, due to its smaller investment cost and the synergy that can be generated by working in networks. Biotechnology as use of biological systems which can be re-programmed according to human will, and where for the first time biological discoveries take a leading role in the scenarios of large world markets, constitutes one of the most spectacular techno-scientific challenges of recent decades. Currently, the prefix “Bio” has become popular at levels never before known. This is explained by the penetration of the techniques of modern biology in society. The trend that began in the middle of the 1970s, when one could visualize the impact that biotechnology and genetic manipulation in general could have on our lives, has been confirmed in recent years with the concrete existence of products and services of biotechnology. The catalogue of bio-terms has grown from biotechnology to bio-ethics, bio-energy, bio-recovery, bio-prospecting, bio-mathematics, bio-informatics, bio-engineering, bio-safety, until arriving at bio-diplomacy. All of these terms reflect a utilitarian vision of biology and its impact on society.

4. The production and consumption of knowledge

The transition toward sustainability requires radical changes in the ways we produce and consume. We now understand better that achieving sustainability is linked not only to improving the environmental situation, but also to how we can learn to live better and how to improve the quality of our social structures. This is even more the case when one clearly recognizes that it is not possible to achieve necessary reductions in environmental impact and in the consumption of resources through merely technical solutions directed at improving the efficiency of productive processes and in making products “greener”.

Why is this? Research shows that added environmental impact continues to rise due to increasing levels of population and of affluence. There are enormous differences between per capita consumption levels of the world’s rich and poor societies. In industrialized nations, the consumption of domestic goods, energy, and other materials, has reached very high levels that are placing tremendous pressures on the environment and the natural resource base. Evidence of the “geographical distortion of consumption” indicates that the general consumption of the wealthiest fifth of the world population is 16 times that of the poorest fifth. Change is crucial on the individual scale, the organizational scale (both within and between organizations), and equally on the social scale (between systems that operationally are functionally autonomous with their own operational codes).

In recent decades, much attention and resources have been devoted to focuses technologically oriented to reducing contamination and to increasing efficiency in the use of materials and energy. These efforts are vital, but in terms of achieving a transition to sustainability, it is necessary to develop a more holistic understanding of production and consumption systems. In addition, interest has been focused on the potential benefits of more systemic changes

that include changes in production and consumption, and the relations that link the act of producing to that of consuming. An approximate example of these changes may be found in the level of innovation of functions, which includes shared use systems, pay by use offers, and functional sales, that may be summarized under the rubric of product-service systems. Some illustrations are comprehensive pest management, the sharing of automobiles, and community-based laundries in Sweden. The latter have become part of urban planning, with energy efficiency and water use standards, providing laundry services for millions of households.

In innovation activities, there has been increasing recognition of the importance of learning and of institutions. Social actors, interactions, and institutions are important components in the conceptualization of innovation processes. (Malerba, 2005). The processes may involve the co-development of various elements such as technology, the knowledge base, learning, demand, firms, non-business organizations, and institutions. Clear references are observed in the behaviour of different sectoral systems such as the role of knowledge, actors, and institutions, with clear implications for the theme of sustainable production and consumption. The demand for changes on the systemic level is directional in one sense, and ideological in the other, since it prescribes desired production and consumption actions of the part of social actors. What underlies these changes on the system level? What is the nature and dynamic of change that involved a change in patterns of consumer production and consumption? And what role do institutions play in this change?

Tukker and Tischner (2006) distinguish between three levels of changes in sustainable production and consumption: 1) optimization of the system, including improvements in existing production and consumption systems using existing tools such as eco-design of products and services, consumer information on environmentally robust alternatives and consumption patterns, 2) re-design of the provision capacity of the system to make it less heavy, frequently based on innovation of functions. For example, rather than satisfying the need for mobility by using private vehicles, an integrated mobility system is offered in which people use public transportation when possible, and shared vehicle systems as an option, although still acting within the contextual framework and the market; 3) innovation of the system, in which not only systems of products, services, and production are optimized, and new ways are encountered to satisfy consumer needs within existing institutional infrastructures, but there is the development and implementation of new infrastructures, planning systems, or incentives that foster more sustainable life styles. Thus, it seems that innovation of systemic function depends on the degree of changes in the entire value/product-service chain, and not merely in provision of the function.

The United Nations Environmental Program (Division of Technology, Industry, and Economy) has numerous activities for promoting wise environmental management technologies and practices, and builds world links among industrial leaders and specialists in clean and efficient production technologies. These efforts could be substantially increased, committing a broader segment of the science and technology community to work on these questions. For example, there is need for sociological analysis in order to understand how advertising and other popular medias influence the choices of consumers in the “aspiration gap” (for example, the distance between what people actually have, and what they feel that they need). Political science and economics studies are needed in order to develop efficient monitoring and/or control mechanisms on aggregate levels of consumption and use of resources. Inputs from ecology and bio-geochemistry would make it possible to develop a systemic perspective on

energy and materials flows through particular places and cycles of production/consumption. And, of course, chemists, physicists, and other practitioners of basic science are necessary in order to continue to move forward in technologies for decarbonization, dematerialization, and detoxification of energy cycles and materials.

This issue can provide interesting opportunities for reversing the traditional roles of sharing knowledge between industrialized and developing countries (seen typically as unilateral, North-South flows of information). Southern perspectives are needed in order to help to analyze behaviours and values linked to consumption, and to help the North develop policies and practices for reducing excessive consumption levels. Some questions in the study of consumption/production that need to be faced in the coming years are (ICSU-ISTS-TWAS, 2005):

- How are material “needs” created? What are the primary determinants that encourage excessive and superfluous consumption? How can values be changed that stimulate unsustainable consumption?
- What kinds of policies have been effective in disengaging improvements in well-being from the growing consumption of energy and materials?
- What are the major patterns and trends of social, economic, and environmental change related to systems of consumption/production? What are the vulnerabilities of systems of consumption/production that are important for these changes?
- What new tools and methods are needed for robust comparative studies of systems of production/consumption?
- What are the roles of institutions, new technologies, and innovation in influencing the dynamic of consumption/production systems?
- What are the implications for sustainable development of incipient trends such as green consumerism, changes in diet, more strict labelling of products, etc.?

5. Science and ethics. Learning to manage risk and uncertainty

The world currently presents never before seen freedoms, but also a high degree of insecurity. The new situation of knowledge is part of this ambiguous and conflictive scenario. On the one hand, science occupies a central position in our society such as it has never had before. From science we expect and obtain the solution to innumerable problems and gains in productivity that go from the treatment of illnesses to most of the quality of what human beings manufacture, plant, or create. However, at the same time, its social appropriation generates a series of problems. For although in certain cases science reduces social and international inequality – serving as a powerful tool for overcoming chronic problems of social and national groups, in other cases it accentuates them.

Our insecurity today is that of someone who begins to feel that he or she may be facing insurmountable obstacles. It is true that there has always been someone alerting the human species in regard to the dangers of passing limits set by God and by nature. It is possible that this is also the root of our current freedom. The heavily determined identities of the past left few options for people. Our time, on the contrary, has opened up an unprecedented range of choices, many of which associate what, only a few decades ago, seemed contradictory. It is useful, in this regard, to recall the Asilomar conference and its success in identifying, assessing,

and in the last instance, mitigating the perceived risks of recombinant DNA in the 1970s. In those years, there was a call for a voluntary moratorium on the part of a group of American scientists until it would be possible to better assess its possible risks. The Asilomar conference, that included scientists from throughout the world, lawyers, representatives of the press, and government officials, considered lifting the moratorium and in such a case, under what conditions research could proceed safely. Finally, it was decided that research on recombinant DNA should proceed, but under strict guidelines which were later promulgated by the National Institutes of Health (NIH) and by comparable agencies in other countries.

In retrospect, this unique conference marked the beginning of an exceptional era for science and for the public discussion of science policy. Its success made it possible for the then contentious recombinant DNA technology to grow and flourish. Now, the use of recombinant DNA technology dominates research in biology. It has altered the way in which questions are asked and how solutions are sought. The isolation of genes of any organism on our planet, live or dead, as well as the construction of new variants of genes, chromosomes, and viruses, and the introduction of genes in microbes, plants, and experimental animals are routine activities. From our point of view, it is interesting to observe that in the 1970s, scientists were frequently criticized for assuming leadership in formulating policies that were subjects of public concern. This led some of them to believe that public discussion in itself was a great threat, and that the consequences would result in debilitating restrictions, or even prohibitions of molecular biological research. However, the effort of informing the public also stimulated a responsible discussion that was able to reach a consensus for the measured focus that many scientists supported. Restrictive national legislation was avoided, and in the end, scientists benefited from their frankness and prudent actions in the face of uncertainty. They thus gained the public trust, since it was scientists themselves who took the initiative, engendering considerable credibility.

But the organizer of this conference, Nobel Prize winner Paul Berg (2004), recalling the circumstances of the event, thinks it very unlikely that the Asilomar model will serve to deal with the themes of today and tomorrow because the issues that challenge us are qualitatively different. There is little chance of consensus in current society, he argues, regarding ethical questions related to the use of foetal tissue and stem cells, genetic testing, genetic germ and somatic therapies, and other areas of uncertainty and risk. In these cases, consensus seems to be possible through political means in which the rule of the majority prevails. Perhaps they are affected by economic self-interest and increasingly by ethical and religious conflicts and challenges that are irreconcilable with deeply rooted social values. In the last analysis, the decisions at Asilomar were made by the scientists themselves, who defined their responsibilities not only as such, but as citizens as well.

The lesson that Berg draws from Asilomar is that when politicians and the general public learn sufficiently about a question to be able to form an opinion, they usually ignore and reject the opinions of scientists. His response to this situation is, then, that “it is better to keep them ignorant until one can achieve the approval of reasonable laws.” Obviously, the issue that still remains open is “better for whom?” Berg grants the power of decision exclusively to scientists. Although it is undeniable that specialist opinion is vital, in view of the present circumstances it appears crucial that the public participate in discussions of questions of risk, in the light of supposed scientific controls and the

“scandals” that unfortunately follow them. The public feels impotent against some of the interests behind regulatory issues. And scientists have been part of those interests. The trends that we observe today have the implications of a civilizatory crisis: the inability of a basically economic development model to allow the physical survival of our world. The current dominant model, called “capitalism”, or “modernity”, or “western dominance of the world” is predatory and recognizes no limits to its expansion.

In these times, and those to come in the immediate future, probably related to uncertainties and frustrations, re-emerges an opposition through faith, that not long ago seemed to be far away. The most developed country in the world, that in which science and technology contribute the most to generate wealth, is also the one in which there is an ignorance and indifference of the population in regard to what constitutes the very basis of its success – or the very basis of its practice. The public agenda contains an adherence to superstitions, to beliefs that modern science rejected more than a century ago. In no other country is creationism as strong as in the United States. Science is incorporated as technology, as innovation, in factories, agriculture, and in services. But the theory upon which it is based, the seed of disquiet and intelligence that pulses within it, does not reach the conscience of millions of people that use it. Science is used, one learns from its results. But the scientific spirit faces impermeable minds when it comes to its work in eroding myths and the construction of a different and better world.

A recent report published in the United States says that the insufficient level of skills of literates among large segments of the population constitutes one of the most serious threats to the sustainability of development in that country. “One hopes that individuals take more responsibility in the management of their own lives, such as planning for retirement, navigating the medical care system, and managing their careers”, says the director of ETS.

However, half the adults do not possess sufficient mathematical and reading knowledge to be able to use these systems effectively. They therefore will face greater challenges when the moment arrives to fulfil their roles as parents, citizens, and workers. Perhaps the greatest concern is the fact that this problem occurs not only among the adult population. Our graduation rate from high school is 70%, and is well below that of other countries. And our students have fallen behind many of our trading partners in reading, the sciences, and mathematics (ETS, 2007)

To what extent does the knowledge of science improve the ethical sense of people, and the values that they assume? A great gap separates, on the one hand, social values and those of science. What can be done for the masses to appropriate science? How can science be transformed into culture? It is necessary for scientific knowledge to enlarge the freedom of choice of persons. As tribunes that we are of the great enlightenment revolution, whether we are scientists or educators, we must conceive of science and quality knowledge in general in social terms; particularly because of its emancipating and improvement role in human life. We tend, for this reason, to often blame the powers of this world – those who decide and who have mass followings – for the ill use of knowledge that we assume to be neutral and even good. Now that the period of nuclear terror has ended, the discourse has returned to what it was before: affirming that quality knowledge is good, and only through deviation or deformation

is wrongly appropriated. There is no promoter of science who does not believe this, or at least does not say so.

Perhaps it is exactly because conventional discourse always proclaims science as positive, as a bringer of indubitable gains; perhaps it is because this discourse regarding knowledge usually ignores the fact that it can serve different masters, that we end up having little notion of that which is Faustic, that which is Prometeic, in the production, consumption, and use of knowledge. But one cannot forget that Oppenheimer was perhaps the first scientist to express in a graphic manner the question of whether the danger lies in the knowing and not in the use of knowledge, and since then humanity has had to live with this burden.

Our ineptitude in modifying the world is shocking. The sciences still play an instrumental role (will they some day be able to do more than this?) Undoubtedly, it would be unthinkable that they take the place of values. Science allows one to know. The field of values is different. A constant of thought differentiates the ability to discover, to invent, to know, from that of assessing and appreciating. Thus are distinguished knowledge and wisdom.

Recently, the distinction between knowledge and wisdom has changed, reserving a democratic role for policy decisions on values and assuring another more intimate place for those subjects that science does not resolve and for which it does not seek nor can find solutions: certain moral values, certain social options, certain religious choices. The choice between the value of solidarity and that of competition is an example. Although scientific studies can point out the costs and benefits of each of them (solidarity generates less productivity, but also less tension; competition produces more, but causes more anguish), a choice as such, is outside the field of science. It belongs to the area of values; of that which goes beyond knowledge, without for this reason being irrational. But even here, science should and can help to clarify these choices by pointing out their effects and by improving the quality of doubts. Can it do so? This would appear to be the role, for example, of the dissemination/diffusion of science.

It seems reasonable to suppose that science improves, in our lives, that of which we are not conscious (such is the case of the new materials, for example), although increasing very little our awareness of the world. The societies in which we live made efforts to improve literacy in the past, and even today in our region, as a contribution to social inclusion, although before completing these efforts there arrived the recent wave of a new kind of literacy that renders people illiterate who: (i) lack a minimum knowledge of computer use, and therefore still cannot, without help, deal with their bank accounts, make payments, exchange electronic correspondence, or read news on the internet; (ii) have no scientific knowledge, and even being able to carry out the almost mechanical tasks of the above item, are unable to understand the world in a more profound manner. Although intense efforts have been made to deal with illiteracy in absolute terms, including math illiteracy, there is little effort to foster the reading of science. Said in another way, official projects, including those of NGOs, seek much more a secondary, pragmatic, superficial effect than a profound and lasting impact on knowledge that would cause education to move to a level never before occupied.

Moreover, attempts to increase public spending on primary education face much resistance from the wealthy, and this opposition is more probable in highly unequal societies. Using primary education in order to reduce poverty will be difficult to achieve unless high inequalities in income are not addressed as well. Various studies find evidence that the rich disproportionately influence the political process, so that public subsidies tend to benefit them (Addison and

Rahman, 2003). The experiences of Brazil, Guatemala, and South Africa seem to confirm this. By emphasizing inequalities in spending for education we are not implying that the solution for the low level of spending primary education should necessarily be resolved by transferring resources from secondary or university education. Finding resources for basic services such as primary education is too often seen as a task of reallocation of resources within the education sector more than through all categories of public spending, where there may very well be unproductive spending outside the education sector. This, naturally, is valid for science. Science assumed an unheard of social role in our times, since it fuels economic development. The search for knowledge is no longer thought of as the personal adventure of an individual, but rather as a collective effort. For these reasons, knowledge is strongly appropriated by economic actors, while for large numbers of people, it is beyond their reach. Worse, in many of our countries there seems to be no awareness of the economic and social impact of scientific research.

Science is filled with ethical questions: the use of embryos in research, the problems of abortion and euthanasia, the very possibility of eugenics presents moral problems that still have not been well-resolved. There are scientists who are ethically blind, and there are religious conservatives who do not understand the benefits that science can provide. There are risks involved, such as those that appeared with the atomic bomb, the only justification of which was the need to get it before Hitler did. The dialogue between science and ethics is a weak one, including in bio-ethics. The risks presented by scientific discoveries are difficult to measure, between the *hubris* of many researchers who don't take into account the problems that can result from uncontrolled science, and the ignorance of the public and politicians who only see that which they want to see. There is a need for a venue through which politics and science can enter into dialogue. Perhaps this exile of science from the *polis* is what is most disturbing today, something we perceive badly when we see the size of the promotion and everything that in theory, seems positive in science. But in practice, it does not necessarily result in improvements, as much as we wish.

Never before has science been so utilized, although the scientific spirit has not become dominant. How then, to manage the risks and uncertainties inherent to the production and consumption of knowledge? Some basic points stand out; they have in common a belief in research, in its public discussion, in the progress of knowledge through research and debate; in sum, a certain democratic spirit. They also have in common a reduction in the belief in truth. Scientific discoveries are provisional. Even when most of them are not refuted, but only qualified, they are not emphatic, but relative. The same complexity of contemporary science causes a growing fracture between scientific knowledge and common sense. The gap includes the difficulty of understanding science on the part of politicians, who increasingly depend upon the intermediation of "experts". The result is that the rationalizing role of science has decreased in the modern world, and thus becomes a cultural resource for fostering the superiority of scientific pretensions regarding the world. As a consequence of the rapid techno-scientific development of science, almost universally considered to be a public good that should be supported, it is growingly perceived as a generator of heretofore unthought-of risks and dangers. The perception of technological development thus incorporates components of uncertainty, ambiguity, and complexity. The unrestricted expansion of scientific knowledge leads to demand that new knowledge and its impact be regulated and managed in some way. Latin America and the Caribbean should prepare themselves to confront these

challenges both through training and in the relative management of different features that the new knowledge brings with it.

If science comprises a kind of community, with similar values, the users of science – politicians, business and religious leaders, social movements, individuals, and society in general – do not necessarily share these values. They use, often with pleasure and profit what science produces. What is the diversity of these uses made of science? What defines them? What gives them value? Scientists and educators prefer an emancipating use, rooted in enlightenment: the idea that science will overcome prejudice and will probably broaden democracy. This kind of science, fecund in social terms, reduces its risks. And, if it brings uncertainties, these are those of knowledge and not of unemployment or spiritual or material misery. But when we recognize the serious limitations that affect the passage of science to society, reflected in the different concepts of diffusion, dissemination, and above all, the richest one, that of social appropriation, the panorama is no longer optimistic. Or, there are not so many reasons to celebrate. But that is no reason to desist. After all, the light that the enlightenment brought with it has almost gone out many times, but it continues to shine. Quality knowledge has yet to proclaim all of its powers. Making science become a vigorous factor of the culture of our time is something that demands dealing with the production, but above all the consumption, of knowledge.

6. What kind of “science (and technology) system” is needed in order to support the search for sustainable development?

Ever since publication of the Brundtland Report “*Our Common Destiny*” (Brundtland, 1987) produced by the former World Commission on Environment and Development, there has been increased recognition of the notion of sustainable development, understood as that which is able to respond to present needs, without compromising the possibility for future generations to satisfy theirs. The report states the enormous existing inequality between wealthy and poor countries is not only a problem of development, but of the environment as well. From this perspective, poverty and exclusion are the most visible symptoms of the problems with the current development model: “a world that permits endemic poverty will always be subject to ecological catastrophes and those of other kinds” (*idem*).

Behind the apparent simplicity of the initial presentation of sustainable development of the Brundtland Commission there emerge enormous challenges, both epistemological and in terms of putting its recommendations into practice in the midst of contradictory trends. There is no doubt that the scientific-technological advances of humanity have made it possible to exploit natural resources in an unprecedented manner and to occupy the most diverse ecosystems of the earth. There is no doubt about the enormous impact that human actions have had in the transformation of the planet on different scales and in different circumstances, generating many of the problems that humanity currently faces: the loss of biodiversity, loss of the resilience of many ecosystems, acid rain, holes in the ozone layer, the greenhouse effect, global climate change. The social, economic, and environmental implications of these changes in the quality of life of most of the population of the planet and on the general well-being are equally important. It is no news to state that the current development scheme is unsustainable.

The International Human Dimensions Programme on Global Environmental Change (IHDP, 2007), argues that in the face of the current “man-dominated ecosystems”, it is necessary to understand the dynamics of socio-ecological systems as connected human-natural systems in which human actions cannot continue to be treated as external variables. Global environmental change is to a good extent a problem of human-environment interactions. In order to characterize these changes, some authors argue that the earth is at the end of the Holocene era and is entering a new geological era called the Anthropocene (IHDP, 2007; Young, 2006; Clark et al, 2005).

The uncertain nature of the results of science, which currently is more aware of the risks and provisional character of the knowledge that it produces and of the decisions based upon them, is expressed in recent international conventions that stipulate that the application of the precaution principle should be proportional to the level of protection necessary and not discriminatory, as well as adjusting regularly as a function of new discoveries. Decisions aimed at determining the degree of risk that a society is disposed to accept are of a political, and not a technical nature, although they are supported by scientific information. On this point appears a fundamental concept: that of responsibility, understood as the collective commitment regarding the technological options taken by a society. Science finds itself obliged to leave the confined space of the laboratory in order to enter into economic and social life (Sánchez Rose, 2008).

Observed trends show that the entities that finance research increasingly foster studies related to problems that oblige one to cross disciplinary boundaries. Some global agencies emphasize the need to promote an “integrated thought focus” through linking the social and economic sciences with the natural sciences, generating cross-fertilizations between methods, perspective, and respective findings in order to reach greater understanding of socio-environmental problems and provide answers to emerging themes of research related to the resilience capacity of systems, governability, and decision-making in contexts of uncertainty (IHDP, 2007). Without wishing to speculate in this regard, it is obvious that these trends will have implications at the institutional and organizational levels of Higher Education.

The challenge is enormous because the problems posed by sustainable development make it necessary for scientists and technicians to establish an open and constructive dialogue with “other” kinds of knowledge, and to include new social actors. It is increasingly recognized that many of the relevant solutions to problems are found in areas outside laboratories, in particular contexts in which local, empirical, traditional knowledge and the incorporation of technology are important. We have recently seen the high price that the modern world has had to pay due to rejecting traditional practices and the knowledge that sustains them in various fields of application that range from medicine to agriculture.

The “modern, scientific view of the world” has tended to discard or ignore other kinds of knowledge due to considering that they lack rigour, are from folklore, and even irrational or superstitious, without realizing that the test of rationality with which they are being judged is in itself a cultural product of western societies (Vessuri, 2004). However, researchers have begun to abandon disciplinary boundaries in order to involve themselves with “real” people in innumerable processes of interaction and communication in a variety of situations and contexts that make it increasingly difficult to maintain the old distinction between academic science and other types of knowledge. This trend was recognized by the Declaration of the World Conference on Science when it defined science as “the capacity to examine problems

from different perspectives and seek explanations of natural and social phenomena, constantly presented to critical analysis” (ICSU 1999).

The interplay of heterogeneous knowledge and perspectives is a complex task that poses important methodological problems to be solved: are all types and forms of knowledge equally valid? Should one attempt to adopt syncretic focuses or include an irreducible plurality of knowledge and perspectives? What are the most appropriate mechanisms to discern the best knowledge and capacities for solving a problem in a particular context? Who participates in these processes, and in what manner? etc. The responses to these questions will come out of the knowledge systems resulting from participatory and trans-disciplinary social construction processes, within venues of negotiation and mediation, aimed at meeting and resolving the concrete, real-life problems (Lawrence and Després, 2004).

Science is not produced in a political vacuum; nor does it function in the absence of knowledge. Between them there exists a circular relation: certain themes placed into relief by scientific research are considered to be objects of political discussion. These, after being incorporated into the political agenda are translated into concrete actions through the application of specific policies, the results of which, for their part, call attention to gaps in knowledge that need to be investigated. Science and politics maintain an undoubted relationship of interdependence and feedback (Guimaraes, 2006). The need to foster bi-directional relations between science and politics is a growing demand as one of the requisites for facing complex global problems. For this reason, it is necessary to strengthen the dialogue between scientists and politicians in order to arrive at mutual understanding between academics and decision-makers. The political perspective should be taken into account throughout the process; from early definition of the problem and during the development of research.

Research oriented by political subjects such as the use of science for sustainable development marks the appearance of a new paradigm known as “sustainability science”. This new research paradigm arose as a promising response to efforts that for some time have been carried out in order to incorporate science and technology on the development agenda, pointing science and technology toward sustainable development, understood as a comprehensive development proposal that should be confronted from the perspective of the socio-ecological system. In this sense, the transition to sustainable development is the most recent occurrence on the development agenda, involving the treatment of social, economic, and environmental problems; reducing poverty and inequality while maintaining the biodiversity and support systems of life on the planet.

The building of more sustainable societies takes place within a venue of political negotiation with various interests at play, in which multiple actors and interests participate in order to reach consensus in regard to what should be developed, what sustained, and for how long. It is for this reason that, despite the declarations to the contrary, there is always the risk that the establishment of the scientific agenda will be finally dominated by the most powerful pressure groups. For this reason, this new paradigm should have the ability to foster an awareness of solidarity and a long-term vision that may make it possible to reconcile the objectives of sustainable development.

7. Challenges and opportunities of e-science

Thanks to digitalization, the new technologies (that today are being called by some *enabling*), globalization, and the appearance of research and innovation in cooperation, now knowledge is generated, organized, and used in many new forms. The initiative of the National

Science Foundation related to *cyberinfrastructure* (NSF, 2006) presents a driving vision for the infrastructure of advanced knowledge in a complex economy, enormously expanded and without borders. The internet is a paradigmatic example of this kind of infrastructure, based on non-proprietary technology and minimally regulated. Virtually free of private or public controls, the internet spread rapidly as a generic technology platform that everyone was free to use and to transform. With its extremely rapid expansion, controls related to service priorities, privacy, property rights, and security developed more slowly – not only because they were not supported in the underlying infrastructure but also because they were perceived as deviations from the open architecture of the internet.

Practices of measurement/mechanisms/institutions

(National Academies, 2007)

Open standards are critical to development of the infrastructure at all levels and to the development of complementary proprietary and non-proprietary products and services.

Proprietary platforms at times stimulate the interconnection of producers of complementary products and services, publishing specifications without demanding payment.

Open source software covers a wide number of focuses different from for-profit companies, including the use of copyright and licensing to define and establish a common space (“copyleft”). Open source software also may be viewed as a complex, highly-defined standard that permits the development of complementary products and sources.

Patent pools have appeared as a new, semi-open form of aggregating rights necessary for the implementation of standards of complex information technologies such as JPEG, MPEG, DVD, and GSM.

Common spaces of information and knowledge bring together voluntary contributions. While Wikipedia is the most well-known example, these common territories also are used to avoid proprietary bottlenecks in research (e.g., the SNP Consortium and the HapMap project)

Collaborative research projects sometimes involve joint access to set of “basic” rights that may be needed in order to carry out research, together with the allocation of access interests to property in any research finding.

Open access publications. As we have seen, these can offer free availability after a limited time of exclusivity.

Crossed licensing is common among TI firms as a way of maximizing freedom of action and simplifying the question of patents.

Simplified licensing such as that of Creative Commons stimulates reutilization under a variety of simple, easily understood terms.

Although the new technologies and legal controls at times seem to have contradictory purposes, in practice there have appeared voluntary means to mediate between both, including a variety of mechanisms, practices, and institutions. Technology transfer for

software, based in universities has functioned in a very different manner than in the case of bio-technology because much of the software is not resource intensive, is for academic use, or is supported by users. But as we have seen above, this trend toward freedom and creativity of internet support will end up influencing bio-informatics and all of the infrastructure for research in other data-intensive areas, such as those that predominate in the bio-sciences and bio-technologies, since each expands the value and potential of the other, and thus stimulating collaboration between researchers, individuals, research teams, institutions, firms, and sectors.

The NSFNET project of the National Science Foundation in the 1980s, and the cyberinfrastructure vision of the present have been motivated by the need to efficiently share high costs of final computing. Cyberinfrastructure inherits all of the legal and political challenges of the internet and the web, and adds to them. Initially, the challenges seem more manageable due to the relatively closed, non-commercial nature of scientific research. However, the vision of cyberinfrastructure extends explicitly to education and under-represented groups, and the practical implementation of co-laboratories, virtual organizations, and human being-centred infrastructure. What was known in the 1990s as the National Research and Education Network of the United States appeared as not limited to research and education, but was open and ubiquitous. Cyberinfrastructure should grow and mature, however, both in level and time, when controls are stronger, more diffuse, and controversial.

What are the interest groups? What is the balance of power like? What are the rules? The local rules of digital ecosystems vary. It will be necessary to investigate how global interaction takes place between communication ecosystems. In the coming years it will be necessary to work a great deal in the area of creating trust and in the development of a framework of governance, without having to use vertical regulatory policies. As with all new science, the path remains to be opened: “one makes a path while walking”, as the poet said (Machado, 1912). The vastness of scientific and research challenges that one merely begins to discern can only be seen as trends. The United States and Europe have chosen very different focuses to control personal data, the ownership of data bases, and the scope of patentable material. These differences persist in spite of their having a common infrastructure, a common concern for fostering innovation, and a common commitment to international harmony. During the coming years, the expansion of cyberinfrastructure can find support in a growing menu of mechanisms, institutions, and strategies. The optimization of all of these tools for supporting research and innovation requires a greater understanding of the social and economic forces that surround the processes of science and technology, as well as a disinterested perspective, empirically based, regarding how to confront and mitigate in practice the tensions between freedom and control.

The experience with expanded infrastructure should tell us much about the ecology of learning and innovation in a world of porous frontiers and immensely powerful instruments. This, for its part, can help us to re-think and re-define the laws and policies inherited from simpler times and circumstances (National Academies, 2007). Extension of the paradigm of knowledge networks, social layers, and economic processes and activities that function in cooperation and competition could be seen as organisms of an ecosystem applying the metaphor of the ecosystem to its digital representation. It has been argued that one can obtain a greater acceleration of developments when ICTs are designed to favour certain processes, such as the

production and opening of knowledge, and by holding back others such as the formation of monopolies. Bringing down the barriers to distributed cooperative effort and the production of shared knowledge would allow the synchronization of dynamic social networks and communication at increasingly shorter time scales, pushing the metaphor of the ecosystem toward a collective intelligence and a distributed cognitive system.

There are already areas of research that link ICTs with epistemology and the social sciences (Nachira et al, 2007). Some questions that will be of growing interest in the coming years have to do with new systems of values and models of behaviour. For example, questions grow regarding what the notion is of public goods in the knowledge economy. How does one compare liberalization of patents in regard to stimulating innovation? We still need to understand how to link innovation with the social dynamic, increase synergies between social development and economic growth. These latter all can be increased through the optimization of digital technologies that permeate all facets of human experience. Why do applications and operational systems become so complex when they increase in size? How can we develop systems that learn from the behaviour of their users, being system-adaptive, self-organized, and self-repairing? How can socio-technical systems and architectures be designed that have the ability to reproduce themselves recursively, creating, destroying, or reorganizing themselves in response to external inputs and disturbances?

The specific research and development efforts directed at transforming science and technology in Latin American countries are interesting. However, the “digital gap” between countries in the region and between them and the advanced countries, as well as within individual countries between different segments of the society and economy is troubling. What one does cannot be limited to the academic and scientific spheres. Although this has been a concern since the beginning of implantation of the internet in the region, the results are far from being satisfactory. Therefore, there is an urgent need for strategies for fostering greater development and greater exploitation of ICTs. A good part of the value of adopting ICTs is derived from their potential to exploit and integrate networks of technology, of knowledge, and socio-economic networks, making possible the dynamic creation of new connections, processes, and cooperation between economic actors. A system that makes possible these multiple kinds of networks cannot be reduced to a platform of inoperable services. Rather, it should develop toward a process-oriented architecture that can support an environment rich in knowledge, and that is representative of its users and their social and economic behaviour.

In the world, the trend in e-science is the link between theoretical research and strategic application for the production of results that can quickly be transferred to industry. The digital venue is increasingly acquiring more importance for creative industries. Latin America and the Caribbean show little development in this field, with the exceptions of a few places such as Brazil and Chile. The philosophy of the “leap forward” closely accompanies the project of incorporating the region into advanced technology in terms of information and communication. The future may be promising, but only if one can strengthen ICTs in the region in all of their areas, including research in e-science. In view of current developments in regional integration, an opportunity exists to achieve integration of projects in strategic fields of research.

8. Discussion

Currently, science and innovation are both more competitive and more cooperative. Globalization increases competition, while the growing complexity must be addressed through team work, coordination, interaction, and the re-utilization of resources. Coverage and scale are achieved less through scaling investment, and more by sharing data, knowledge, and infrastructure, at times in association with competitors. The new sciences and technologies provide infinitely adaptable frameworks of reference, stimulating and making possible that participants with different abilities, roles, and incentives work together for the achievement of common ends – whether they pursue an agenda of research, as facilitators in learning, or developing a product. Of course, having a reference technological infrastructure is essential, and can be satisfactory for homogeneous groups or for well-understood complementary relations as provider and client. But the great challenges of the next 20 years include the possibility of participating in the creation and distribution of knowledge from extremely varied contexts, being able to enter and exit at different moments. How can collaboration be made effective? Can we reach agreement about contributions, procedures, interests, and expectations when predictions are imperfect and motivations differ?

Cooperative advantages are becoming a key component, and at times the dominant one in a world that will be increasingly interconnected. At the same time, controls such as patents and other exclusionary mechanisms will become more complex, diversified, and intrusive; that is, the abilities to overcome barriers and frontiers will grow at the same time that more effective limitations will be defined. How will cooperation and resource sharing function that will be increasingly powerful at the world level within an environment with profoundly institutionalized controls? The problems are only beginning to appear, but the answers are themes to be explored in the future. Public legislation is also changing drastically in the light of changing competitive values and interests. But political responses to technical change may be delayed and debatable. How will the increasingly accelerated flows of knowledge align with greater incentives for control, and increasing capacity to collaborate? What will Latin America and the Caribbean do to manage the new scenarios and participate in the world that is emerging as a consequence of developments that are appearing and that surely will materialize in the coming years in science and technology?

It is very probable that new disciplines will develop as a natural result of the fast-paced advances in science and technology. A labour force will emerge in these new disciplines, that could very well be as important as are today the relatively new sciences of computing, mathematical biology, genomics, the environmental sciences, and astrophysics. There will be a growth of national, regional, and international associations and collaborations in the development of this new labour force. In our region, it will be necessary to pay special attention to barriers to the use of new knowledge and to foster the training of teachers, particularly in institutions that serve socially disadvantaged groups. The region faces the special challenge of having to stimulate programs for introducing innovative methods of teaching and learning through the use of ICTs and the development of research that make it possible for students, teachers, scientists, and engineers to work and to learn in environments rich in cyberinfrastructure. Life-long learning, using formal and informal mechanisms, will be an essential part of the labour force in societies in which knowledge is in constant expansion.

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Chapter 3

QUALITY, PERTINENCE, AND THE SOCIAL RESPONSIBILITY OF THE LATIN AMERICAN AND CARIBBEAN UNIVERSITY

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All of the reflections that follow are based on a fundamental premise: education is a public good, a right of all, and an obligation of the State. This premise states two things that are important: a) not only does everyone have the right to an education, but it is also the duty of the State to provide quality education to all; b) education is not a negotiable good, although it may also be imparted by private parties. Being public, education must be of quality, and for all. For this reason mechanisms are beneficial that carry out the functions of fostering and assuring the quality of institutions of Higher Education (IHE) according to the priority demands of society. As a public good, guaranteeing the quality of education cannot be transformed into an interesting branch of business. Rather, it is vital that it be an instrument for fostering democratic values and for strengthening national sovereignty and identity.

Another initial statement is needed: as one can read in the literature of the area, it is very difficult to satisfactorily define the word “quality”. This is especially so in the case of education. References to its existence are very common, but without defining or operationalizing its meaning. It is the basis of our considerations, but we cannot express with much conviction what quality is. Speaking of the quality of Higher Education is an on-going challenge; even more so when we witness a process of expansion and privatization that is transforming Higher Education into a field ringed by multiple disputes.

Although we lack a definition that is fully satisfactory for all, we feel that it is important to attach to the concept of quality some basic features. In this text, we insist on the unavoidable need to link quality with pertinence, equity, social responsibility, cultural diversity, and the specific contexts within which it will develop. This helps us to specify that quality is not an isolated concept, but rather one that only acquires meaning to the extent that it is linked to its social purposes. In the case of Higher Education, the concept of quality should take into consideration public commitment and the social roles that correspond to these institutions.

Besides discussing the conceptual aspects of quality in education and its essential links with pertinence, social relevance, and the public commitments of Higher Education, we will also attempt to present general suggestions from a point of view that looks at important dimensions of the great heterogeneity of Latin America and the Caribbean. This is a difficult, but one that cannot be refused. Of course, this is so not only due to the inherent thematic complexity of the problem to be confronted. Nor is it an easy task to place these themes within the reality of Latin America, given its enormous regional diversity in which there are common values, but also others in conflict, with different interests and projects that are often contradictory. The great relative disparities in terms of economic, cultural, educational, and technological development (especially the enormous heterogeneity of national systems of Higher Education) further complicate attempts to establish future scenarios within the regional framework.

1. Quality, pertinence, and social relevance

Luis Eduardo González and Oscar Espinoza (IESALC, 2007) present various conceptions of quality found in the specialized literature. Among the more traditional classifications is that of Harvey and Green, who offer the following five options:

- Quality as an exception. This conceptualization has three variants:
 1. quality seen as something of a superior nature, elitist and exclusive;
 2. quality as the equivalent of excellence, achieving a very high standard that is reachable, but in very limited circumstances;
 3. quality understood as the fulfilment of minimum standards.
- Quality as perfection or consistence. In this case, in order to establish quality, one makes a judgement according to a pre-defined and measurable specification. This definition allows for different sets of standards for different types of institutions. It is based on two premises: that of “zero defects”, and that of “doing things well”. In this case, excellence is defined in terms of particular specifications. A specification in itself is not a standard, nor is it assessed against any standard. On the other hand, it is seen that it is possible to have non-universal standards for Higher Education. The “zero defect” focus is, in the opinion of Peters and Waterman, intrinsically linked to the notion of a “culture of quality” in which everyone in a particular organization are equally responsible for the final product. Doing things well means that there are no errors in any stage of the process, and that quality is a shared responsibility, which approaches the concept of total quality.
- Quality as aptitude for the achievement of a mission or proposal. Here, quality refers to the manner in which a certain product or service adjusts itself to a purpose, with this usually being determined by “client” specifications. This definition of quality is generally used by governments in order to guarantee proper allocation of resources.
- Quality as added value. This is a conception that has been used since the 1980s, and is associated with cost, demanding efficacy and efficiency. Here, quality would be the degree of excellence at an acceptable price. Underlying this focus is the concept of accountability: responsibility to financing agencies.
- Quality as transformation. This idea is based on the notion of qualitative change. It questions the focus of quality based on product. A quality education is one that produces changes in and enriches the student. The student appropriates the learning process.

On the other hand, for the ISO norms, quality has been defined as the degree to which a set of inherent characteristics fulfils some requisites.

Thus, according to the definition of CINDA: “the concept of quality in Higher Education does not exist as such, but rather as a term of reference of a comparative character in which something can be better or worse than another, within a set of homologous elements, or in comparison with a particular – real or utopic – pre-determined standard of reference. In fact, one may only establish that an institution is better than another when their purposes are homologous, agreeing in their mission and being in a similar context.

According to the concept coined by CINDA, the increase of the quality of Higher Education is not an unlinear process that can be simple assessed by a set of static and quantitative indicators. On the contrary, it is a multi-factor process, the results of which differ depending

on the standards of reference. All of this means that the results of a change in the quality of education may be considered very positive by those who share certain values, and very negative by those who hold other, conflicting values.

The innumerable concepts of quality coincide in aspects and attributes from different perspectives. But it seems to us that no definition has been able to account for the complexity of all of the concept's possible meanings and satisfy all academics and interest groups. It is very important to distinguish the concepts of quality that are rooted in business concepts from those that are rooted in educational concepts. The business concept of quality has been transferred to broad and important sectors of education. It is interesting to observe that the great success of "total quality" as an industrial model, directly responsible for the leadership of Toyota and for the great competitiveness of Japan in the global economy has an important impact on the agenda of education. The growing attribution of economic value to education has witnessed a peak in the appropriation of business logic into the formulation of the concept and in the assessment of quality. For this reason, it is quite common to associate quality in education with concepts such as efficiency, productivity, cost-benefit, profitability, suitability to industry, to the workplace, and its translations into quantitative expressions. For those responsible for central administration, the quality of education is more associated with student performance and achievement, employment training, reduction of costs, and increases in enrolment. These are also the most easily visible aspects, and can be presented objectively to society. But they cannot offer an understanding of all of the meanings of quality.

Education is a social phenomenon, and not all of its attributes and dimensions are measurable. The quality of material objects may be established with the aid of the natural sciences. That of human and social objects will be, however, always a matter of opinion, although thanks to specialized activity it may, through convention and reasoning, come to be acceptable and accepted.

It is not the case of opposing quality and quantity. They are co-essential dimensions. For this reason, a human, social, and dynamic reality, as with the case of education, should be understood by means of a complex interweaving of perspectives, methodologies, instruments, and epistemological tools that bring together the dimensions of quality and quantity. As Sturbrin (IESALC, 2007) emphasizes, in seeking to understand human realities, one arrives at a point at which without the measurement of magnitudes, interpretation fails. Both perspectives, then, face each other in dialectic opposition. But we need to reintegrate them if we wish them to provide us with reliable knowledge.

For many reasons, the theme of quality has become central on the policy agenda of Higher Education. The principle reasons are not necessarily the same for each interest group. The question of quality is important in order to increase economic competitiveness; to improve qualitative indicators of citizenship; to create broader conditions of employability; for the public trust in the proper exercise of educational services, etc. In all cases, there is a phenomenon that confers currentness, urgency, and great need to the theme of quality. This is the phenomenon of the explosive growth of enrolments and institutions that in some countries reaches the level of massification.

This phenomenon of expansion presents tensions that are centred on dispute regarding the meaning of quality. Elitist arguments hold that quality in education is only possible for the few. On the other hand, if we think of education as a strategy for strengthening all national

potential, as a public good the benefits of which all have a right, as a process of decreasing inequalities and of fostering social justice, in this case we agree that education for more people, possible all people, means the increase, and not the loss of quality. If we consider the criteria of equity and social justice associated with the concept of education as a public good, we then must conclude that an education system that marginalizes parts, and many times the majority of the national population, is not one of quality.

External structural questions were those that most pressured Higher Education to place quality at the centre of its agenda. From society, from governments, and especially from the market, have come strong pressures to make significant changes in the very meaning of Higher Education and in its functions and attributes in a world possessing a global economy. These changes cause as well a revision of the concepts of quality. Current movements to re-conceptualize quality in the academic world are making manifest the contradiction between, on the one hand, efforts that seek to insert into Higher Education the language, logic, strategies, and successful practices of industry; and on the other, the struggle for the preservation of the academic *ethos* and of its values most identified with autonomy, the public interest, and the specificities of science in the tasks of research and training.

Speaking in a schematic manner, one may say that we are witnessing the struggle between two different types of paradigms of quality. There are those who conceive quality according to criteria that seek to be objective and universal, placing more value on scientific rigour and on what is quantifiable and measurable, and typically identified with economic terms and schemes, such as rates of development, profitability, cost-benefit calculations, efficiency, economic return on investment, quantitative rates of growth of enrolments, time take to graduate, teacher-student ratios, indicators of scientific production, system expansion, performance measurement, student performance, the ability to capture resources from various sources, employability, etc. Others, without denying the importance of many of these aspects, also see as relevant the political and social realities of the institutions and of education systems: qualitative dimensions such as ethical attitudes and civic values, the place of Higher Education within national and regional strategies for the consolidation of democracy, sustainable development of citizenship and of the national economy, and respect for the cultural identities and the ideals of the cohesion of peoples.

With primary emphasis on the restrictive concept of economic, rather than of human development, and in light of the growing threat of education being transformed into a marketable product, the mercantilist and business arguments and the logics have attained great importance on the agendas of the wealthy countries. This has occurred in detriment to the themes of the pertinence, social responsibility, and equity of Higher Education – values that were emphasized at the World Conference of Higher Education of UNESCO in 1998. In the poor and developing countries of our region, these themes remain on political and university agendas, but they face enormous resistance on the part of the forces of so-called “modernization” – forces that in general are identified with globalization and the economic instrumentalization of Higher Education. Higher Education has become a central and important subject due to the fact that within the sphere of neo-liberal hegemony knowledge has become a productive force increasingly committed to mercantile interests.

CMES 1998 offered a contribution of enormous relevance when it linked quality, perti-

nence, and equity. In general, in the different texts produced under the auspices of UNESCO, the word *pertinence* refers to the role and the place of Higher Education in society, as a place of research, teaching, learning, commitment with the world of employment, etc.

According to García-Guadilla,

Pertinence is linked to one of the principle characteristics of the new context to produce knowledge; that is, the emphasis on taking into account the surroundings within which research institutes exist, and, therefore, the need for close contact between those who produce knowledge and those who appropriate it. On the one hand, those who appropriate it – its users – are not only students, or internal users. These also include the communities in which the institutions exist, and also, in a very important way, the other levels of the education system. (García-Guadilla, 1997: 64/65)

Moreover, Hebe Vessuri says:

Not less important is the participation of Higher Education in the search for solutions to urgent human problems such as population, the environment, peace and international understanding, democracy, and human rights. (Vessuri, 1998: 417).

Pertinence is acquired through the participation of the educational institution, through its actors, in the social, economic, and cultural life of the society in which it exists, and especially with the people in its surroundings, without ever losing the perspective of universality. The directions of this participation are two-way, and include both the producers and the users of knowledge. In this sense, knowledge has a public value; it is pedagogical, and contributes to social development. The alliance of quality and pertinence rejects a possible link to mercantile ideas and business logics, but rather corresponds to a conception of education as a public good at the service of the building of democratic and just societies in favour of the affirmation of national identity.

It is worth while recalling once again that UNESCO, at the World Conference of Higher Education 1998, made it clear that the concept of quality has as a referent the set of dimensions that make up the phenomenon of education: teaching and academic programs, research and grants, personnel, students, buildings, installations, equipment, and service to the local and university communities. UNESCO also stated the quality also requires that Higher Education be characterized by its international dimension. Of importance in order to achieve and maintain quality are the careful selection of personnel and their constant training, the fostering of appropriate plans of study, programs that facilitate the mobility of teachers and students, and use of the new technologies, without losing sight of the reference to the social factor and the common good.

Coinciding with this view of UNESCO, we seek to delve deeper in the concepts, and affirming that from its roots, education is a public good and right of all. Therefore, it should be organized as a system composed of all formal and informal levels, and should include science and technology. The education system is present in different connections in which various elements act reciprocally: different educational institutions, research at all levels, and entities

of the government and of society. Quality Higher Education cannot exist without active co-operation with prior school sub-systems and without close links with the structures of science and technology.

These premises – education as a public good and system – reject the view of education as a product and dependent on the market. Thus, the importance of the social processes fostered by IES, which activities respond with pertinence and relevance to the mission that society places upon it. For the underdeveloped countries, it is vital to generate knowledge within a vision of their preservation and strengthening of national sovereignty. Higher Education cannot leave aside its role in the strengthening of this identity. Thus, if Higher Education is a public good, and its quality is to be associated with pertinence, equity, and national and regional objectives, without losing its universal perspective, it cannot be “global public good”. This re-definition, within the global plane, detaches education from its historic links and from the concrete circumstances in which institutions exist and where education processes and knowledge production take place. In this sense, it goes against the public meaning of education as a primordial and irreplaceable process for individual and social development, against the realization of the common objectives of the consolidation of cultural identities and the improvement of living conditions of peoples, especially of underdeveloped countries.

Accepting education as a “global” public good, without considering national realities and commitments, especially those of non-industrialized countries, means opening all doors to the consolidation of a global system of Higher Education that only interests the developed countries. This would have two consequences for our countries: opening them up to the physical and virtual invasion of transnational institutions, always of dubious quality and without a commitment to the objectives and demands of the society in which these institutions insert themselves primarily as for-profit institutions; and pressure for creating a global and uniform model of Higher Education, with homogeneous criteria and global mechanisms of assessment and accreditation. This is a real threat, in view of the advance of agreements of multi-lateral agencies, especially the WTO, to officially and globally define education as a negotiable service. This very possible scenario should be one more argument for Latin American and Caribbean countries to carry out effective efforts of cooperation and to arrive at common agreements that strengthen national systems of Higher Education and their respective national mechanisms of assessment and accreditation. The disturbing image of the transformation of education in general, and Higher Education in particular, into a commodity, perhaps will serve to reinforce the conviction that education systems, and particularly their institutions, have a fundamental role in the construction of active nations, as political and cultural entities, part of the grand human community.

The concept of quality, besides considering the historical and cultural characteristics of institutions of Higher Education and their surroundings, recognizes the presence of international referents through a critical value judgement of the same. But not all international and transnational criteria of quality, nor all strategies of wealthy education systems, are necessarily appropriate for the poor and developing nations. The “good practices” of the industrially advanced countries, in which there is significant demand and technological capacity of businesses, do not always correspond to the needs of the economically more backward countries. This statement is not meant to reject internationalization. Rather, it insists on the need for national Higher Education systems to carry out effective policies for insertion into the inter-

national environment, and not to remain passive and vulnerable in the face of undesirable external influences, but as a cooperative strategy of countries through the affirmation of the political and cultural identities of each nation – in our case, the countries of Latin America and the Caribbean.

National education policies are a necessary condition for fostering quality, through appropriate strategies and actions. These policies demand decisive State participation that guarantees the necessary resources for education. It is necessary to achieve a greater commitment than currently generally exists, as a basic condition for fulfilling the principle of education as a right of all. The young people who are traditionally marginalized face enormous difficulties in attaining advanced training and in competing with those who possess cultural and economic capital that facilitates entry into the most important public institutions. In order to combat the perverse effects of inequity that have developed historically in many of our countries, it is also necessary to introduce support measures that favour the education of groups of students who lack advantages.

At all of its levels, and throughout life, education is a human right. For this reason, it should be conceived in terms of an integrating and continuous vision. This has as an unavoidable consequence the fact that education, as a right of all, should be of quality at all of its levels. The democratization of Higher Education cannot be accomplished through wide coverage alone. Martin (IESALC, 2007) states that access to Higher Education should not be considered solely in terms of the “time of entry” of the student, but rather as a process that begins at the primary and secondary levels of education, is extended with arrival at the teaching institution, and is linked to permanence in the program of studies. Therefore, public policies should take into consideration the fact that, in regard to students of Higher Education, it is not only a question of entry, but rather of continuing to study, graduating, and finding employment that is appropriate and coherent with the education received, and thus allow people to be more responsible citizens, have opportunities to enjoy a full life, and be able to exercise all of their social rights.

However, access through merit is not sufficient for guaranteeing equity; that is, equal opportunity to “enter, remain, and graduate”, considering the strong effects produced by school segmentation generated in primary and secondary schooling. In particular, actions are necessary that guarantee access to and permanence in university classrooms for students coming from lower income social sectors, such as members of indigenous groups, blacks, people with mixed race, persons with special needs and those who live in distant locations.

In effect, one of the most important dimensions of the responsibility of quality Higher Education is in regard to previous levels, above all to policies and actions for improving the education of students and teachers at these levels. The quality of teaching institutions for the primary and secondary levels is very heterogeneous. Their most important negative effects occur in the most disadvantaged segments of the population. This has as a consequence that inequality gaps increase as the education level increases.

All of these concepts should be part of a concept of education as a public system, made up of all educational levels. The meanings of pertinence connect Higher Education to social, cultural, and economic issues – that is, to comprehensive and sustainable human development that allows all men and women to have a life of dignity and justice. In order to accomplish all of this with quality and social relevance, States must maintain effective policies for improving

systems of basic education, especially with concrete measures that raise the social value of the teaching profession. The Higher Education sub-system in particular has socially determined responsibilities to other levels of education, and principally to the education of teachers. Without a strong education system at all levels, which demands well-trained individuals who are aware of their roles and are socially recognized, one cannot think of true citizenship and national sovereignty.

Higher Education has not only the mission to train citizens and professionals with the qualities necessary for building democratic and developed societies and with the technical skills that potentially can generate economic progress. It is also a basic reference for the strengthening of national memory and the deepening of national cultures and identities; one that respects the plurality of expressions and projects of different social groups. (Dias Sobrinho & Goergen, 2006: xxxviii).

In this lies the very heart of the social responsibility of Higher Education.

2. Social responsibility and sustainable development

Development is a prominent theme in contemporary society, but it is a paradox that the concept is almost never placed in discussion. Higher Education is closely associated to the ideas and expectations of development in various ways: economically, socially, culturally, scientifically, etc. For this reason, the concept of development should come under the examination of university criticism. It is the irrefutable role of Higher Education to submit to critical judgement the hegemonic meanings that are currently attributed to development, and in consequence to the roles to be played by Higher Education. According to a widely-disseminated and current ideology, a quality education is one that generates development. However, it is necessary to question not only the concept of “quality”, but also what is meant by “development”.

In general, at the current time of the global economy, development is associated with economic growth and to progress of the bases of production of material wealth. In this sense, meeting the requirements of quality would mean to adjust oneself to the market and to properly carry out the functions of the economy, especially in regard to professional training and to strengthening industry. But if we see education as a public good, the mission of which is the realization of the common objectives of cohesion and development of a nation and the expansion of human freedom, we need to go far beyond and economicist vision. The themes of human realization, citizenship, and development carry with them many theoretical difficulties and enormous practical challenges the equation to which Higher Education should offer its contribution. In this regard, the following warning is inevitable: Higher Education cannot be content with the economicist and business meaning of development and social responsibility.

The social responsibility of Higher Education should be radically different from the *social responsibility of businesses*. Involved in a new civic discourse, the “social responsibility” practiced by companies, including those of the education sector, is in general a subterfuge that seeks to increase profits. It is a *marketing ploy* for generating “high dividends for the public and social image”, thus adding value to a company’s brand. But, as Dupas points out, “these private prac-

tices dilute public and political references in the attempt to reduce social injustice”. They are practices that are unable to resolve the grave problems of social exclusion and depoliticize the issue (Dupas, 2005: 121 and 123).

However, according to Goergen (IESALC, 2007), given the invasion of neo-liberal logic, it is necessary for Higher Education to make an effort to re-think itself in light of new epistemic and ethical theories. It is not enough to offer services to particular external sectors. It is not enough for universities to extend themselves into the society, without reflecting upon the meanings of these actions. Rather, it is necessary for them to completely re-think their activities within a social perspective. Beyond the business mentality, social responsibility demands that universities reconstruct themselves internally, taking into consideration the socio-cultural reality in which they participate. Thus, social responsibility means producing knowledge, train professionals, and make culture in and for the reality the reality in which an educational institution actively participates. For this reason, universities should not merely look from the inside out; they need to re-think from within. Nor is this a case of bureaucratic and administrative reorganization. Rather, what is most important is that they reflect on their meanings and their role in the building of a civilizing process within these new contexts. In effect, the social responsibility of Higher Education is also associated with the concepts of pertinence and relevance and, finally, of quality with public value.

The quality of an education committed to public values and objectives can never be a contributing factor to more inequity and barbarism. On the contrary, education should foster all possibilities and opportunities to expand social equity in favour of an increasingly elevated society. Higher Education that is pertinent and socially responsible should contribute within its venue and according to its possibilities, to knowledge of and solutions to problems and needs of society. One of the most pressing problems in Latin America and the Caribbean is the lack of equity, associated with illiteracy and low rates of schooling. In view of this panorama, the social responsibility of Higher Education should be in the promotion of greater coverage. Children belonging to historically marginalized social groups – black population, persons of mixed race, members of indigenous groups, and especially women and the poor in general – not only have the right to receiving quality education; they also require special programs that make it possible for them to acquire academic degrees and meaningful knowledge. Facilitating equitable access to public goods, facing poverty and inequalities of all kinds, is the responsibility of all of society, and especially of educational institutions. This should be a public commitment of institutions of Higher Education, including private ones. Education is of increasing importance for guaranteeing equality of opportunity for all:

Given that education is an instrument par excellence in the search for equality, well-being, and social justice, it is at the centre of plans now being carried out to guarantee achieving the total transformation of society itself and the eradication of marked asymmetries between its different segments. (Boroto López, 2004: 48).

The quality of Higher Education is directly related to its ability to contribute to the development of individuals and societies. The comprehensive education of individuals is correlated with human social development, which requires a broad increase in the schooling of the population in terms of coverage and of quality, an effective renewal of policies for increasing equity

and decreasing poverty, strategies for taking advantage of natural resources, and the application of knowledge for sustainable development. This requires material and human resources; that is, financing, political will, and the intellectual and ethical capacities of States, societies, and institutions.

But it is important to underline the fact that this is not a case of adjusting knowledge and its uses to strengthening the private accumulation economic model – an especially the labour market. Universities are institutions that have the society, and not the market, as a referent. They should open themselves to society, but this does not mean limiting their central task to professional education and to provide passive responses to economic structures. Besides being functional and calibrated to the market, Higher Education has a civilizing role justified by the common values of members of the academic and scientific community. The responses of Higher Education to the demands of society must be based on the reflective, rigorous, and critical capacity of the university community when it defines its purposes and assumes its commitments. Autonomy is vital for this purpose, without which universities cannot re-think their commitments. Academic freedom is essential in order to define priorities and to make decisions according to the public values that underlie science and social well-being.

Autonomy is absolutely necessary in order for universities to think about and make decisions about the values that sustain the production and appropriation of knowledge. In effect, in the exercise of its social responsibilities through their pedagogical and scientific activities, institutions of Higher Education should contribute to transforming the essence of the epistemic and ethical-moral paradigm underlying the form in which governments, institutions, and persons think and act. As part of its social responsibility, Higher Education should place at the centre of its agenda of reflection and concern the urgent and grave themes that assail humanity, such as questions about the environment, inter-cultural problems, trans-disciplinary focuses, peace, sustainable development, etc. This involves the need to place technical-scientific knowledge, epistemic democratization, and all critical capacity within the perspective of the humanitarian ideals of freedom, social justice, peace, and human development.

From the perspective of social responsibility and ethical commitments, it is not merely a case of achieving development at any cost; but rather of seeking a model of sustainable development. The evidence shows that the current hegemonic model of development, urged on by the global economy, is able to solve neither the essential problems of humanity such as access to food, housing, education, and health, nor guarantee preservation of the environment. On the contrary; much evidence shows that this model continues to have serious negative impacts on environmental and social balances. In spite of humanity having sufficient resources, both in terms of knowledge and finances, in order to eliminate poverty and assure the integrity of the environment, this goal is far from being accomplished. The ideology of development with an exclusively economic focus poses the threat of the social and environmental collapse of human civilization. The symptoms of the exhaustion of an environmentally predatory and socially unjust development style, states Goergen (ISEALC, 2007), are quite well-known. What is important now is to discover, recognize, and correct its causes. This involves a radical change in the view of the world, of the relation of man with nature, and with life in general. In other words, it involves a model of sustainable development and of economic development that is in harmony with human, social, and environmental development.

The progress achieved in some sectors of human life can in general be viewed in relative terms in light of the anthropological-philosophical question in regard to the real meaning of development for human beings. The issue is very broad and complex, but as a first approach, the notion of development can be seen as universal, comprehensive, and sustainable; *universal* because it should apply to all human beings, of all countries and regions; *comprehensive* because it should involve human beings as a whole – in their material, and spiritual dimensions; and *sustainable* because it cannot be limited to a brief period of time, and should be assured for all future generations.

The major concern of our time appears to be the question of how to achieve a model of development that includes everyone, that develops man in a comprehensive fashion, and that is sustainable. Many summit meetings, many multi-lateral agencies, many agreements are treating this question, but without concrete results. As an example of other similar cases, the UNESCO documents produced at conferences in Stockholm (1972), Rio de Janeiro (1992), and Johannesburg (2002) place emphasis on the seriousness of the moment and offer good proposals in terms of general State policy. But there is very little concern for effective actions in education, the change of awareness of individuals, and support for research for fostering sustainable development.

Current globalization brings important advances, especially in the area of information. But it certainly adds grave problems for most of humanity. Poverty, hunger, illiteracy, violence, and the destruction of the environment grow, while new problems arise in terms of exclusion associated with inequality, increasing precariousness of employment, expansion of urban violence, and new epidemics. Moreover, a new kind of exclusion of the gravest consequences is growing disastrously for the poorest segments of the population: digital exclusion, related to the lack of access to the new technological standard. This exclusion represents a new kind of slavery. Many individuals, social groups, and even entire societies do not have access to communication and information media. For this reason, they are excluded from the grand international circuits that dominate not only the economy, but culture itself. In effect, they are excluded from the world of employment, of citizenship, and thus from any possibility of leading a dignified life. (Dias Sobrinho, 2005: p. 239).

Changes produced in all sectors of life by the global economy, especially in regard to the means of production, reception, and application of knowledge, are producing a decrease in the importance and pertinence of public values – not only in Higher Education, but also in political spheres and above all in business sectors that show little commitment to the endogenous development of science and technology.

Powerful global interest groups impose their wills and practices on national limits, legislation, and authority. Hegemonic scientific-technological development often established priorities that do not correspond to the interests and needs of underdeveloped or developing societies. Given that science should always respond to the principles of social justice and human legitimacy, it cannot justify itself solely through the criteria of utility and instrumentality. Understanding and not merely manipulating the world means re-establishing the person, the subject, as the centre of the process of knowledge, of the relation with nature, and with relations with other human beings. It is necessary for a critical epistemology formulate the difficult questions in regard to the relation between science and the meaning of man, freedom, justice, and peace. On the other hand, it is extremely important to not forget the simple questions

directly related to the contribution of science to well-being and the happiness of the concrete individuals who live, suffer, and dream in its vital environment (Goergen, IESALC, 2007).

Within a scenario increasingly dominated by private institutions, and under strong economic pressures, one of the major commitments of Higher Education is the professional education in accordance with the labour market. The question is: what does professional education mean to universities, particular in view of the high demand of individuals and the scant offer of employment? There is not space available here to discuss this question in depth. But it seems important to indicate some paths for reflection. Neither the reality of structural employment, nor the deleterious effects that the instrumentalizations of individuals for the labour market have on human development can be forgotten. Thus, it is necessary to emphasize that, in regard to the theme of professionalization and of insertion of individuals in the economy, what is most important is education for life-long learning within a vision of citizenship; that is, active, critical, and constructive participation in society.

When one assesses the quality of an institution or of a program, one places into question the quality of student education. The question needs to be asked: is this a question of the education of individuals adapted to the interests of the economic system, or of educating aware, critical citizens who are active in the construction of a humanely developed and just society? Professional training is an important dimension of social pertinence. But it cannot be limited to being an instrument of the market. Much more than this, human training consists of the comprehensive and permanent education of the person in all of its professional, intellectual, political, and ethical dimensions; an education that is committed to the central questions of the projects of sustainable human development. Thus, the criteria of quality in regard to professional and citizen education should be developed based on the context of the insertion of institutions; that is the realities of concrete human beings, with their traditions, cultures, needs, idiosyncrasies, and identities.

The ability to learn throughout life is one of the most important requirements of a quality education. It is important to note that this does not have a mere instrumental value, but that, above all, it should mean the appropriation of the ability to read and to understand the real world and to learn the meanings of its changes. Higher Education should contribute to the construction of a profound process of dialogue and cultural communication. This is not limited to practical meanings in economic terms, and is an essential condition for peace and for sustainable development. Enormous progress has been made in the field of science and technology; but the distance and inequality between cultures represents a grave obstacle to sustainable development. From this perspective, Higher Education should carry out the critical effort of attaining the *ethos* of the culture of a people; that is, in light of universal movements and national idiosyncrasies, Higher Education cannot avoid the responsibility of being a critic of the culture, the norms, the values, and the traditions expressed in the lives of societies. It is in the creative and symbiotic meeting between that which is universal and what is local that one builds the basis for the edifice of sustainable development. The university is a work of universal reason that finds its substance, however, in national culture.

There are problems that are fundamental and not necessarily shared, at least in the same degree, among different cultures – such as those of multi-culturally, ethnicity, illiteracy, violence, corruption, and others. If these problems are not considered, any kind of sustainable development project may be unviable. Every society has peculiarities that are not found in

other contexts and that need to be known, and their possibilities of transformation developed, for the attainment of a more just and dignified society. This is the principle of hope in the service of which the university should be involved. A place of theoretical and social *ethos*, the university should be a public venue for developing a critical analysis that overcomes the critical deficit of globalization. In the areas of culture and of communications, there are essential issues such as solidarity, mass society, projects of emancipation, preservation of identity and diversity of cultures, of languages, etc. This is the case of creating a counterpoint to the dominant economicist ethic which holds that the economy is humanity's only reason for being. This is part of social the responsibility and of the quality of Higher Education, according to Goergen (IESALC, 2007).

Higher Education cannot be an instrument of a globalization that increases social inequalities, produces material and immaterial wealth for the few and human misery for the many. Higher Education cannot adopt the concept of quality associated with an economic globalization that increases inequalities, disrespects cultures, and does not submit itself to the ethical principles of justice and sociability.

The great ethical challenge presented to Higher Education is the construction of a globalization that is one of justice and dignity. For Higher Education, this means producing knowledge and fostering education with great attention to pertinence and to the ethical dimension which lend meaning to the future to be created as autonomous individuals and sovereign nations. Strengthening citizenship internally continues to be one of the great challenges for Higher Education. This cannot block another necessary confrontation: Higher Education must also foster the cognitive and ethical conditions for strengthening in the face of impositions of the globalize economy [...] Pertinence means commitment to knowledge and educational the service of an ethical-political project of society (Dias Sobrinho, 2005: p. 245).

If we wish to guarantee equality among people, says Christof Wulf, we need a reflective, critical, and heterogeneous globalization, including cultural diversity, the challenge of others, and anthropological reflection on historical and cultural differences. (2006, p.37).

3. Assessment and accreditation. Assuring quality in the Latin American and Caribbean contexts

Currently, nearly all countries have organized or are organizing mechanisms for assessment, which is the specialized activity for establishing university quality. University assessment is a recent phenomenon in Latin America, with different degrees of progress and objectives, which seeks as well to consolidate its models in the face of many technical and political difficulties. Certainly, it owes much to learning assessment, which has a longer tradition in the history of education due to the key importance that learning has in the educational process. In the words of Stubrin (ISEALC, 2007), learning as the acquisition of awareness of the very being of the student and of the world, as an emancipating reflection even for the most disabled, and especially for them, was a very influential current in the idea that university communities could

assess themselves and place themselves under the assessment of members of other similar communities as a source of knowledge. Learning assessment is often linked to teacher assessment. Self-awareness regarding our practices represents, in effect, a cognitive leap that helps to more rationally choose better paths to follow. However, assessment practices in Higher Education, carried out under the auspices of the State and through the initiatives of institutions of Higher Education and/or sectors of the academic community, are broader and more complex than learning assessment, both in its instruments as well as its objectives. Often, assessment is associated with accreditation.

Assessment and accreditation are different concepts, but also have a high correlation. In some cases, assessment encompasses accreditation. In others, it is believed that accreditation is a broader phenomenon that includes and goes beyond assessment. The emphasis is placed on one or another term, according to the concepts and objectives attributed in each case.

The word “assessment” is most commonly used to refer to processes of analysis, study, and discussion in regard to the merit and value of systems, institutions, and programs with the purpose of their improvement. Such processes can combine internal and external actions, with broad participation of the academic community, or only of specialists or groups of peers. The word “assessment” is almost always associated with quality improvement. But these concepts find themselves in dispute theoretically and politically, between educational values and those more close to the economic field.

Under the inspiration and with the technical-financial support of multi-lateral agencies, one notes beginning in 1980-1990 a take-off in standardized assessments of quality, usually external in nature, in order to thus facilitate comparisons on the national and international scales, with the wide use of statistical processes. On the other hand, one also notes the efforts of an important current of academics to assure assessment processes that, above all, respect university values of knowledge as an element of human attainment of socially relevant scientific training, of attitudes of respect for diversity, cooperation, freedom, and justice, without the purpose of classification and rankings.

The term “accreditation” refers to different practices and to many uses, as noted by Stubrin (2004: 11; IESALC, 2007): accreditation of institutions, programs, courses, validation of degrees and study plans, based on the State or society, etc. The major focus of accreditation is to guarantee quality. In other words, to assure society that an institution or program fulfils the minimum national or international requirements of quality as established by State agencies or private ones authorized by the State.

C. Adelman’s definition, that appears in the *Encyclopedia of Higher Education*, edited Burton Clark and Guy Neave (pp.1313-1318), is the following:

Accreditation refers to a process of control and guarantee of the quality of Higher Education, through which, as a result of inspection and/or assessment, or of both, one recognizes that an institution or its programs satisfy minimum acceptable standards.

In reality, it would do little good to detect differences of quality or to plan for the attaining the ideals of quality if we did not possess a social technology able to attribute it to each particular situation. First, confirming that it is what it says it is; then showing its degree of fulfilment and/or sustainability. In the economic realm, this is easier. In industry, and subse-

quently in the service sector, quality is the demonstration that each product or each particular action has the features of the type to which it belongs. These same criteria and procedures are often brought into education, but they do not resolve basic qualitative and anthropological dimensions.

In the real world, following a method, seasoned members of academia, state agencies, or society make pronouncements regarding whether some example of the species that they observe or study is in fact a university or one of its parts: a department, school, institute, of this or that discipline or profession, and whether its products correspond to expectations. This judgement, expressed publicly with arguments and proof, is then to constitute knowledge for those involved, near or far away, with intellectual legitimacy and validity justified within the order of knowledge and conduct that structures this community. This is what Stubrin (IESALC, 2007) calls “substantive quality” as opposed to “adjective quality”. For him, adjective quality is a judgement based on differing degrees of conformity that the observed reality maintains with definitions of pre-established and agreed upon criteria that seasoned members of a disciplinary or professional community, employing an appropriate method, may pronounce regarding a university or some of its parts, considering the presence or absence of particular features, and the interpretation of how they operate in an organic interdependence.

In Latin American countries, national mechanisms for the public guarantee of (substantive) quality use a set of technical-juridical terms that designate procedures, permissions, and requirements thanks to which university institutions openly and legally operate and based on a public guarantee regarding the scope of their activities: authorization, recognition, certification, title, credential, validity.

Many examples of models could be cited, such as those of Brazil, Argentina, Chile, Mexico, Colombia, and many others that by now have a certain background and their own identities, which include those carried out in sub-regions (Central America, MERCOSUR Educativo, etc.). Some of these are more consolidated and others are still seeking to establish themselves. It is important to emphasize that the countries of the region, albeit with difficulties and resistance, but also with some notable progress, continue to build a culture of assessment and accreditation in order to improve and to offer some public guarantee of the quality of education systems and sub-systems.

Once they had attained a certain size and complexity, above all since 1990, the Higher Education systems of Latin America and the Caribbean instituted guarantee some mechanisms for the public guarantee of quality. The most common form is through centralized State control. The most frequent tool is the authorization and recognition of degrees, as well as the authentication of diplomas for graduates.

Stubrin (IESALC, 2007) observes:

- 1- Almost all of the countries of our region have entered into assessment and accreditation processes, an initiative that shows varying degrees of progress;
- 2- In most cases, assessment and accreditation complement, but do not replace, the historical mechanism of public guarantees of quality;
- 3- The objectives of those who make the decision to implement these measures vary: to strengthen State control as a response to the impact of the growth in the number of institutions, programs, professors, and students; to up-date and improve university offerings,

using reports produced through a public diagnostic mechanism in order to foster academic changes, attract funds, or guide investments; to foster the circulation of graduates of the national system, and mobilize their teachers and students toward other countries and regions.

- 4- Depending upon history and circumstances, countries tend to prefer at least one, and frequently several of the above-mentioned approaches.

Among the various quality assurance models are: the Modelo Experimental de Acreditación de Carreras of MERCOSUR (MEXA), the model of CINDA, the *Total Quality Management* model (TQM) and the European Foundation for Quality Management (EFQM). Generally, there are many features involved in assessing academic institutions and units, many of them developed by multi-lateral agencies such as the OECD. González and Espinoza (IESALC, 2007) list the most common: insertion within their environment, and satisfaction of the surrounding community with the tasks carried out by the institution; integrity and coherence with its mission and principles; existence and quality of the strategic plan; degree of fulfilment of the plan according to fixed indicators and of stipulated time periods for the functions of teaching, research, extension, service, and institutional management; availability of infrastructure, equipment, financing, number and quality of the teaching and administrative staff; number and quality of students; libraries and information resources; efficiency in the use of available resources; availability and quality of student services; organization and structure; participation and government; information and enrolment systems; internal assessment processes; managerial control and correction of deficiencies.

All assessment and/accreditation practices carry with them either implicitly or explicitly a concept of quality. Therefore, they are not neutral practices. Through a review of the literature, González and Espinoza (IESALC, 2007) observe that many authors note that either the concept of quality adjusts to the interests of the actors involved, or can only be handled in terms of particular dimensions or areas of action associated with particular value referents. In effect, for them, the concept of quality should be linked to an educational project that is dynamic and changing. Consequently, what is most important is the strategic direction toward quality, associated with an institutional vision and mission. Therefore, having as a guide a critical and reflective perspective on every-day activities, the improvement and guarantee of quality in institutions of Higher Education may be associated with different parameters such as: assessment, supervision, information, and certification. For these authors, this new concept of the quality of Higher Education, more dynamic and associated with institutional management, leads to the application of more sophisticated quality assessment models, going from linear schemes to matricial focuses, and more recently to systemic references such as the TQM and EFQM models.

Among the most important aspects proposed for measurement in order to assess courses and programs, González and Espinoza (IESALC) list: employability and satisfaction of employers with graduates, satisfaction of graduates with their training; coherence between what is offered to students and what is delivered; delivery of information regarding student plans and programs; consistency between educational principles and the training provided; fulfilment of established enrolment goals; fulfilment of established study plans and programs (Pensum and Syllabus); punctuality and fulfilment of established classes, appropriateness of the infra-

structure for the course; availability and up-dating of libraries; access to computer networks; availability and quality of laboratories and workshops; installations and teaching resources; quality of the teaching staff; quality of students; passing, repetition, and drop-out rates; real duration of the course and students delayed in its completion; efficiency in the use of available resources; costs per student; quality and structure of the curriculum; appropriateness of teaching methods; appropriateness of learning assessment procedures.

Among the forms that have been used for measuring graduation skills for professional or technical performance are national examinations – particularly for courses or professions involving social risk. The development of national examinations involves, first, defining the profile of graduates, and then establishing measuring instruments such as: knowledge examinations, interviews, real or simulated problem-solving, case resolution, etc. In Brazil, national examinations are dynamic assessments that seek to verify the learning potential of students and the changes that occur during their years of study.

Besides national examinations, other tools used are the recognition of relevant experience and the of previous studies. These are not unimportant, given the expansion of alternative education venues such as distance programs as well as the entire process of internationalization and of student exchange.

In the region, assessment may not include accreditation, but may be used in order for authorities to be guided by public information and to seek improvement and in others in order to maintain the control that ministries continue to exercise, according to our classic institutional arrangements. But there are also cases in which assessment and accreditation replace traditional means of State control, replacing them with others, or joined with ministries in the assessment and accreditation of social risk-related institutions or courses, supporting ministerial recognition and validation by providing judgements regarding quality.

Implementation models of quality assessment in Latin America and the Caribbean are far from complete, and require not only continual adjustment, but even more, technical and policy discussion based on a comprehensive and integrated conceptualization effort. Quality, as a cultural link between countries and disciplinary communities is an open and promising prospect. It should be remembered that assessment and accreditation are ambivalent and ambiguous tools within the current panorama of the internationalization of Higher Education, given that transnational offerings, particularly those that are profit-motivated, threaten the public character of Higher Education.

Globalization is encouraging mechanisms and political proposals through which assessment and accreditation may become global, thus breaking ties with nations and States. In such a case, commercial ventures in education would enjoy *carte blanche*, supported by certificates of academic validity. This is not mere delusion, but a real possibility before which universities and States should remain active and vigilant. In our opinion, the incorporation of assessment and accreditation mechanisms through the national public guarantee of quality strengthens the Higher Education systems of countries without closing the systems within their frontiers.

On the other hand, attempts to carry out regionally integrated systems of assessment and accreditation are valid and necessary. The main premise of such a strategy is the positive development of exchange based on the historic cosmopolitan nature of academic communities. The basic requisite is to be open internationally, without hegemonies or asymmetries that would concede additional advantages to the great powers or blocks of which they are a part. A neces-

sary condition is that quality criteria not be non-critical copies of external models, however prestigious, but rather that they be true maps drawn endogenously for the creative and participatory collaboration of our academic and professional communities that contain what our own realities, possibilities, and problems have that are different, similar, and common, while never losing sight of advanced knowledge as an irrevocable goal.

In our view, quality is linked to pertinence and to responsibility in the sustainable development of society. It cannot be limited to a formal, abstract, and static understanding, unattached to the realities that people create in concrete situations and conditions. Not all quality concepts, criteria, and standards formulated in and for developed countries can be useful to poor and developing institutions. Many of the strategies and objectives that wealthy States attribute to Higher Education are certainly different from those formulated by nations that have not yet attained high levels of economic, educational, and technological development. The same is the case in terms of full stability of democratic life and full social justice. These asymmetries explain the existing discrepancies between the hegemonic countries and the rest in terms of quality and its assurance in Higher Education.

Public education should be provided in an equitable, continual, and permanent manner. The concepts, criteria, processes, and uses of quality and pertinence will be very different, and in many cases contradictory, according to whether education is understood to be merchandise or, on the contrary, a process of the construction of scientific and socially relevant knowledge and the education of persons able to participate critically, creatively, and civically in the construction of their societies.

Universal goals exist. But they are very different, depending on whether they are stated in countries with more consolidated economies, or in those under development. Some values are common to Higher Education anywhere in the world: the search for truth, ethics, respect for diversity, scientific rigour, autonomy and freedom of thought, the culture of peace, self-criticism, etc. However, national realities should be the point of departure in the construction of socially responsible institutions.

Pertinence is an essential dimension of quality. One cannot speak of quality *in abstracto*, unconnected from the concrete realities that lend it content and form. Quality must have a social, public value of commitment to the communities in which educational institutions exist. Consequently, the processes of assessment and accreditation in Latin America and the Caribbean should give the highest priority to the indicators of pertinence and social relevance, as well as to policies and actions that generate more equality and well-being for all.

If concepts of quality determine assessment and accreditation styles, the latter also contribute to produce notions of quality. Particularly for Latin American and Caribbean countries that are still in different stages of institutionalization of their democracies, the quality of Higher Education should build a true alliance between the institutional mission in its scientific/training dimensions and regional realities, the needs of peoples, and national projects and strategies, without ever departing from its central objective: the building of public citizenship of democratic, just, socially and environmentally sustainable societies. Pertinence is related in time and place to concrete realities and needs. Assessment can be an instrument of quality driven by its essential dimension: pertinence and social relevance.

If there is no universally valid model of Higher Education, neither is there one for the production and appropriation of knowledge. We are unlikely to establish a universal, unique, and

objective concept of quality that is valid for all institutions of all areas of the world. The general indicators cannot surpass the determinations that each institution of Higher Education establishes as a process in the construction of its identity. Where there are diversified systems and differentiated institutions of Higher Education, with different histories and identities, it is necessary that there exists the possibility of various interpretations in regard to quality and the fulfilment of standards, according to the essential commitments that each institution attributes to itself in the light of international requirements, national strategies, community needs, and the institution's own opportunities.

Nor can quality be identified with its instruments such as, for example, national examinations or with their outcomes. It is important to insist on the idea that education carries with itself meanings that go far beyond the teaching-learning relation, especially if this relation refers merely to the contents of an academic program. Measuring student's results in the teaching-learning process is important, but in and by itself it is not sufficient for determining the quality of a program or of an educational institution. Beyond the learning of academically measurable content, what are in question in a pedagogical relationship are the existence and learning of values, aptitudes, projects, expectations, and dreams. Although the market has prevailed in recent decades, knowledge does not have an economic value only. It has above all a fundamental social and cultural value for individual and collective well-being.

Training is a substantive function of education. But it is also a multi-dimensional and polysemic concept that carries with it epistemological, ethical, aesthetic, economic, and political-social perspectives. The quality of education should refer, ultimately, to training in its full and permanent sense: intellectual, moral, professional, social, affective, and aesthetic. Seeking quality in terms of training means seeking to achieve the greatest development possible of the subjects of education – students and teachers – in the multiple dimensions of human life. A university guided by the principle of the development of public values cannot, therefore, give first priority to the ideology of individual achievement. The quality of education is social and public. First and foremost, it is the source and instrument of the common good, and not a lever or motor for possessive individualism. The quality of Higher Education must be clearly related to the commitments of these institutions to the social meaning of knowledge and to the instilment of moral and ethical values of collective well-being, democratization of access and of permanence, social justice, and sustainable development.

Training, knowledge, and techniques need to be rigorous in an intrinsic sense, and pertinent in the perspective of the society in which and for which they are generated. In other words, they need to have social utility, or more precisely, a social value. The fostering of quality, pertinent, and socially relevant education is not only the right of persons; it is also a social necessity and a duty of the State. The lack of quality education with broad capacity for coverage represents a violation of a basic human right and a waste of intellectual and moral potential that produces irrecoverable economic, civic, and human losses. Learning must be pertinent to the development of socially responsible individuals. For this reason, the subjects of education, who have a shared responsibility to be critically and constructively integrated into society, should also be protagonists in the conceptualization of quality and in the practices of assessment and accreditation.

4. Conclusions and suggestions

We have argued throughout this text that Higher Education can only be considered to be of high quality if it is committed to the public values of a specific society. Are wrong those concepts of quality based only on technical and supposedly neutral criteria and that make abstract the concrete realities, demands, needs, and wills of the persons and communities that are the reason for being of educational institutions. Without pertinence and social relevance, there cannot be quality of education understood as a public good.

The quality of Higher Education is directly related to its capacity to contribute to the comprehensive development of individuals, with special attention to those traditionally marginalized. True human and social development, that includes all members of society, requires a broad quantitative and qualitative increase of the schooling of the population, as a fundamental foundation of a strong revival of public policies for increasing the equity and reducing poverty. One of the key elements of sustainable development, besides making appropriate use of natural resources, consists in generating and applying knowledge with a strong social value. To this end, many material and human resources are needed: financing, political will, and the intellectual and ethical capacities of States, society, and its institutions and actors.

The relation between quality education and the construction of citizenship (of socially responsible subjects) cannot be understood outside the conception of Higher Education as a public good. With society as its principal referent, its contribution to the construction of democracy is an essential dimension. This dialectic between quality public education and the construction of democracy and republican equality involves the concept of the social responsibility of educational institutions and the duties of democratic States. Education has universal dimensions, but is also firmly based on local, national, and regional realities. It should contribute to economic development, but as an instrument of humanization, not as the ultimate horizon and determining reason of society (Dias Sobrinho, IESALC, 2007).

Latin America and the Caribbean present important examples of combining, within a global focus, the different objectives and methodologies of assessment and accreditation. One can mention significant cases of complementary and cooperative processes of assessment for the improvement of all institutional dimensions and of control or regulation, using different methodologies, both static and dynamic, specific and cross-cutting, quantitative and qualitative, summative and formative, internal and external, with pedagogical and/or operative experiments in restricted and broad contexts, short and long-term, under the responsibility of formally designated specialists, or with the broad participation of the academic and scientific community, etc. What is most important is that such processes are not necessarily opposed. On the contrary; they can combine the functions of improvement and regulation.

The creation of assessment and accreditation agencies in Latin America and the Caribbean, beginning in the 1990s, has gradually contributed to foster general projects and activities of institutional self-knowledge and of regulation of Higher Education systems. In spite of many difficulties and technical, political, and financial problems, and the enormous diversity in terms of types and sizes of organizations and of quality levels of institutions, assessment and accreditation processes in Latin America and the Caribbean can already point to important progress, both in the theoretical field as well as in practices in the area. Some positive aspects can be underlined, in spite of the heterogeneity of the systems and institutions of the region:

the gradual consolidation of a culture of assessment, the organization of verifiable data and information systems regarding Higher Education institutions and systems, the concern for quality, improvement in dialogue between university communities and members of ministerial sectors, an increase in academic publications, courses, and events dedicated to the subject, and increasing interest on the part of societies. There is much evidence that assessment and accreditation are consolidating as a culture for institutional improvement, a process of guaranteeing quality vis-à-vis society, an area of studies and of professional activity, and as a mechanism for international cooperation.

But we face serious problems and challenges as well. One of the most important challenges is consists of relating assessment processes based on concepts of improvement, emancipation, autonomy, and academic freedom to accreditation practices based on control, regulation, and obedience to external norms. Generally, one sees a replacement of the processes of self-assessment and focused qualitative assessments in the production of meaning by external processes of assessment and accreditation. These external processes have purposes that are predominantly of control and regulation. But they are not always efficacious in avoiding the proliferation of institutions that are of low-quality and without social relevance. It is notable that in many Latin American countries, the creation and proliferation of low-quality private institutions without practically any social commitment, but with an insatiable thirst for profit. On the other hand, assessments developed aimed at understanding and improvement and which enjoy the participation of the university community in their conception and execution, have more training potential, since they create greater commitments of people in achieving institutional missions.

In general, the countries of Latin America and the Caribbean lack a sufficient number of good quality educational offerings. This fact creates interesting opportunities for profit for international profit-driven companies. These global actors prefer that the mechanisms of assessment and accreditation follow the general guidelines determined by multi-lateral and transnational agencies, without being subject to the laws and education policies of each country. Private companies and entities of civil society of various kinds, in general more identified with the models of the great powers, could, in this manner, take it upon themselves to legally develop assessment, and above all, accreditation processes. With this, pertinence is nullified.

In the kind of internationalization that submits itself to the economic interests of the great actors in economic globalization, these interests use their power to create the bases of a free market that favours the flow of supply and demand of transnational Higher Education. Its principal objective is, almost always, profit, with minimum regulations and on a global scale. For its part, cooperative internationalization linked to the authorities and university communities of different institutions, different systems, or sub-regional areas, work in common efforts to achieve quality, coordinating discourse and practices that can be translated into and adapted to the concrete reality of each nation, respecting cultural diversity.

The cooperative internationalization that creates networks of exchange in Higher Education should have as a basic requisite the equality of nations. International cooperation should be carried out with the guarantee of not existing hegemonies and asymmetries that favour the nations and blocks possessing the most power. The prime condition, according to Sturbrin (IESALC, 2007) is that criteria of quality not be non-critical copies of external models, however prestigious these may be, without true maps constructed in an endogenous manner

through the creative and participatory collaboration of our academic and professional communities, that display what is distinctive, similar, and common in our respective realities, possibilities, and problems, and that never lose sight of advanced knowledge as an irrevocable goal. In Latin America and the Caribbean, a region that possesses very heterogeneous academic, cultural, economic, and demographic realities, fulfilling this enormous potential of cooperative internationalization in favour of regional development and that of each country, is still on the agenda. The intensification of efforts should count on the participation of the nations in search of common understandings.

Certainly, useful examples exist in the region, such as MERCOSUR, CSUCA, and others, that benefit from three key values: cooperation between governments, universities, and disciplinary/professional communities; the endogenous design of ideals of institutional, academic, and professional quality, taking into account the realities and cultural traditions of the countries involved, without losing sight of universal disciplinary referents; and the administration of processes by national agencies created by the legislation of each country.

Intraregional and inter-regional exchanges provide opportunities for mutual learning among countries, with each benefiting from the experience of the other. But, beyond bi-lateral exchange, it is urgently necessary to create multi-lateral networks that make possible cooperative agreements between the countries of the region. This requires an international entity that can work not only for reconciling interests, but also to foster the progress of all educational systems. Among all multi-lateral agencies, UNESCO is that which possesses the best conditions for exercising this role to articulate international cooperation, for it enjoys wide credibility in academic and scientific circles, and has a long tradition in the defence of the humanistic and democratic values that are the essential nucleus of education as a public good.

The multilateral networks and cooperative projects that bring different Latin American and Caribbean countries together are important for strengthening the region in the face of decisions and criteria generated by the major powers, and in the face of laws and logic that are markedly mercantilist. Cooperation between the different assessment and accreditation agencies of the region is the best way to foster the construction of a culture of assessment, to produce adjustments in language, and to establish general criteria in consonance with national realities and the efforts of regional and sub-regional integration.

A key feature in international cooperation is the strengthening of pertinent and scientifically and socially high-quality public Higher Education. Therefore, academics, scientists, national systems, sub-regional and regional blocks have a common struggle: against the commercialization of the educational services that are in conflict with national public criteria and policies, especially trans-national services, that in general do not contribute to the strengthening of national identity in that they do not express linguistic and cultural diversity, nor work in favour of the development of social cohesion of the country where the for-profit companies establish themselves. This struggle has a basic postulate: that all countries seek to offer high-quality education at all levels for a rapidly growing student population.

The strengthening of regional institutions and systems of Higher Education with social quality demands processes for producing general convergences on some essential points, all of which are related to the understanding and effect practice of relevance, pertinence, social responsibility, and public commitment. Moreover, an important aspect of the construction of broad convergence is the respect for institutional identity; that is, recognition of autonomy

as a basic condition for defining one's mission and choosing the means for the fulfilment of commitments to society.

In summary, the processes of assessment and accreditation in Latin America and the Caribbean must take into account some fundamental values of the fulfilment and improvement of quality, founded on the basic premise of the public good:

- Pertinence, social responsibility, equity, social relevance, ethics, commitment to the construction of nationality; social,
- Autonomy, freedom of thought, respect for institutional identity, democracy (internal and external aspects), transparency;
- Internationalization, cooperation, integration and articulation of networks between States and university actors;
- Conception and treatment of education as a system that expresses diverse dimensions, different levels, and networks;
- Mutual respect and trust between agencies and university actors;
- Assessment and accreditation processes should be participatory, democratic, and educational, although they also are useful for control and regulation;
- Respect for the environment and all forms of life in society;
- Responsibility in the transformation of society, especially in technical training and citizen education, in the production of knowledge that contributes to strengthening democracy, the culture of peace, the eradication of illiteracy, and to overcoming all forms of social injustice;
- Respect for the institutional mission: a key for the assessment of quality. (Dias Sobrinho, 2006).

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Chapter 4

INEQUALITY, INCLUSION, AND EQUITY TRENDS IN HIGHER EDUCATION IN LATIN AMERICA AND THE CARIBBEAN: TOWARDS AN ALTERNATIVE SCENARIO FOR 2021

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At the beginning of the XXI century, the dynamic and trend of income distribution, and the inequality that it produces are so marked, that people with a daily income of \$2 dollars or less make up half of the income distribution of the world. It is estimated that the 10% wealthiest in the world receive more than one-half (+ 50%) of total income, while 50% of the world population receive less than 10%.

In considering inequality and exclusion as determining factors in policies for fostering equity and inclusion in Higher Education in the LAC region, it is necessary to approach the problem by looking at educational institutions from within (inclusion policies of institutions of Higher Education) and to consider dynamics and context (inequality/discrimination) in order to identify their causes and future impact on the region. Overcoming inequality and exclusion as a strategy for taking the path toward sustainable development or our societies is perhaps the most urgent and important goal for countries and institutions of Higher Education in the context of globalization, the world economy, and the new perspective of constructing knowledge societies for the peace and well-being of humanity. Overcoming inequality¹ with progress in terms of inclusion, participation, and greater equity presume terms of reference that have to do with the expectations and goals of societies regarding what is not acceptable. But it is necessary achieve that which possible, desirable, and pressing in order to arrive at a liberating state of realizable well-being for citizenship.

Current trends include a set of elements and events that establish a trajectory and that are able to continue if current processes remain relatively constant in regard to a probable future. The trend lies in the forms in which societies have organized themselves and have acted in order to meet the needs of growth and development according to their shared values, historical development, structure, power relations, and action strategies in order to achieve and meet the needs and aspirations of their constituents.

The balance of strategies for the growth and development of the region in recent years in terms of human needs and the challenges of a new millennium can be summarized in the following:

- The impact of neo-liberal policies in a large number of countries has been to increase economic, political, and social inequality between the sectors of society; the continuation of poverty, exclusion, and the marginalization of social, ethnic, and racial groups. In spite of the progress made by countries in the region, the increase of inequality, poverty, and exclusion of social, ethnic, and racial groups continues.
- Little effectiveness or absence of inclusion/participation of sectors and groups in economic activities of production and distribution; accumulation and distribution of wealth; tributary policies inappropriate for overcoming state fiscal crises as a point of departure for reducing

1 Poverty means a lack of access (insufficiency or exclusion) to economic activity or forms of satisfying basic human needs: safe water, food, shelter, health, and security that make the right to life possible. At the beginning of the XXI century, 50,000 people die daily due to physical or mental causes related to poverty in the world. From 1990 to 2005, 270 million people (the majority being women and children) died due causes linked to poverty, and nearly 800 million go to sleep hungry due to lack of food (ONU, 2005).

foreign debt and to make possible a reform of institutions responsible for providing services to citizens and to invest in constructing a future with sustainable development for all.

- Globalization of the economy and economic-political interactions between countries in recent decades have led societies to view their development and future options in terms of a competitive capacity that brings with it new priorities, strategies, and alliances which, for their part, lead to granting more importance to some values than others, such as the dichotomy of reconciling public, individual, or private interests. These are changes that have an impact and give direction to societies, their values, institutions, participation, and modalities of citizen interaction.
- Internationally, the dominant trends of change in the “advanced countries” tend to foster a logic of social organization in which the strategic aspects of development are aimed at strengthening the active role of the productive sector and dynamics of the market. Within this scenario, self-sustained growth of the poorest countries can continue to be limited in relation to the wealthy countries in that the latter cannot insert themselves in processes of integration and of interdependence accompanying economic integration, while globalization processes rest on the interweaving of capital investment, technology-based production, and communication networks. Moreover, a regional structuring exists in which the poorest countries will not be able to integrate themselves as zones of production and markets due to low levels of productivity and schooling of groups of the population; and a regional economic structure in which raw materials and labour costs lose their relative values in relation to competitive strategies based on research, knowledge, innovation, and added value of capital investments of multi-national companies. This context has created alternative scenarios aimed at local endogenous development in different parts of the world through new and different modalities of integration-regionalization and cooperation.
- In spite of growth, economic development, and the accumulation of wealth in recent decades, poverty, inequality, and exclusion are evident in the populations of many countries of the world, and in the region are evident at all levels of society, particularly in health, housing, and nutrition, and in regard to life opportunities in education, employment, and in representation and participation in economic, political, and cultural activities, among others.

For decades, the analysis of inequality – in both advanced countries and in the region – has been linked to poverty. This has been explained as caused by beliefs derived from the political culture of societies in which individuals and groups are unable to overcome their condition of asymmetry, lack of employment, low incomes, and progress which are seen as limited by reasons of attitude, lack of initiative, laziness, intellectual capacity, low performance, among other reasons, and thus they have not taken advantage of educational and life opportunities compared to what others are able to do by using their talent, initiative, and capacity for self-sufficiency in order to lead others and to take advantage of opportunities for personal benefit and according to the interests of a group that legitimates “the way things are” in the society. This conceptualization is supported by assumptions that begin by seeing the economy as a “parallel area” with a particular cultural dynamic derived from market forces and their relation to social and cultural processes of the society in terms of needs and future aspirations (Holton, 1996). “Knowledge” and ideas with which one constructs reality guided by the norm of interaction of citizenship that has been extended to the reproduction of differences linked to well-

being between groups and between persons through policies and practices in institutions that justify and sustain privileges, exclusion in regard to life conditions, needs, racism, prejudices, and discrimination in the face of the diversity of unsatisfied needs such as the right to life and to opportunities that the population has in the development of societies.

In the second half of the last century, a large number of countries of the region experiences high rates of economic growth up to the 1980s, when there was a de-acceleration and stagnation in many of them. During the 1990s, notable and considerable growth trends returned in some countries. Growth was attributed to an increase in productivity, and not as expected due to high accumulation of wealth, as postulated by neo-liberal strategies which encouraged stimulating investment and savings in order to foster economic growth. In any case, it was the weight of productivity that generated GDP and per capita growth in the economies of the region, and that favoured investment and savings (the accumulation and re-investment of capital). Some of the determining factors in the increase in productivity are associated with levels of education achieved, labour participation, the development of infrastructure, and good use of technologies. These are aspects that result in a standard of growth for the economies of the region, in policies, reforms, and institutions to stimulate productive capacity, growth, and the development of the countries of the region (Loayza, Fajnyber y Calderón, 2005).

In spite of economic progress in recent years, inequality has become a central theme and major priority in the discussion of goals for development strategies (IDB, WB, ECLAC, UNESCO, and OECD, among others). Recently available data and studies (Bowles, 2006; Stiglitz, 2002; Hayami, 2000, and others) have linked inequality with low productivity, limited income, and little opportunity for citizen participation in the economic activities and policies of countries of the region, in particular with the little weight given to rates of economic growth and distribution of wealth in the medium and long-term.

The Latin America and Caribbean region (LAC) exhibits the lowest rates of income distribution, compared to other parts of the world, and also has one of the highest levels of social injustice if we consider the distribution of income as a central element in social justice. Continued poverty, due to the extreme concentration of wealth in some groups, together with low labour participation (unemployment and underemployment) in many countries represents one of the unmet challenges for the region. In the face of the challenge of inequality, it is not enough to grow economically at a higher rate. It is necessary to grow toward greater social equity. This inequality, one of the most serious in the world, will tend to continue and to worsen if we do not change the current focuses of many government policies.

Considering the challenges the region faces at the beginning of the third millennium, an analysis of the problems of development linked to actions intended to overcome them has revealed serious limitations that have led to scenarios marked by the continuity and deepening of inequality and the exclusion of strata and groups in most of the countries of the region. During the last 15 years, development policies in the region have been ineffective in significantly fostering inclusion, participation, and equity in societies. A large number of countries remain in the “poverty and underdevelopment trap” in which inequality of income has a large impact on the possibilities for national growth and development. In spite of periods of economic growth, poor income distribution compared to population growth has maintained some sectors of societies at the margin in terms of the levels of development achieved.

Taking into consideration the Declaration of Human Rights (UNO, 1999) and of “Life-

long Education for All” (UNESCO, 2000), and according to previous and similar concepts (Fagerlind and Saha, 1983; Furtado,1977) of “development”, the process is seen as a “change” in a desirable direction which, among other dimensions, includes:

- An increase in the efficiency and effectiveness of a society’s production and distribution system,
- The satisfaction of the basic needs of individuals and of general living conditions – economic, social, cultural, and collective,
- The achievement of the objectives and goals of different sectors and groups of a society, and not of a small number of citizens who enjoy and are linked to the use of a nation’s available resources.

In view of the above, and for the purposes of the analysis of the state of inclusion and social equity in the region, the concept of the development of persons and of the sustainability of societies in terms of equity, can be expressed as:

“involvement and commitment in the redistribution of resources (differences, conditions, or costs) according to a philosophical ethic and vision of shared equity according to what is fair for the constituents of society” (McMahon, 1982).

“the process through which people increase the capacity and desire to satisfy their needs that legitimate the desires and others, and the collective creative process of learning through which societies increase their capacities to satisfy needs and desires to serve all their members and improvement of their environment through the constant search for satisfying all needs and desires. Although this capacity is not fully realizable, there is an attempt to continually achieve it” (Gharajeraghi and Ackoff, 1986).

“The effort of societies to satisfy current life needs without compromising the ability of future generations to satisfy their needs and to seek the well-being of all in all the forms of human existence as a whole” (United Nations, Brundtland Commission, 1987; UNESCO/F. Mayor, 1999)

“Cultural diversity is necessary for the viability of biodiversity of humanity, both for economic growth for sustainable development as well as for intellectual, moral, emotional, and spiritual existence” (UNESCO, 2001).

“Development has to do with the results obtained by the economic, social, and cultural policies of governments to reduce or eliminate poverty, inequality, and unemployment in a growing economy” (D.Seers, 1971).

“The rich countries development models cannot be transferred to poor countries due to the inexistence of similar conditions for their implementation, and due to the great differences existing between them” (Arthur Lewis, A. 1955).

Economic, social, cultural, and ecological policies of governments, institutions, and international organizations directed at endogenous, sustainable development (Aponte, Molina, 2006) with inclusion and equity cannot be focused solely on the “growth” of economies of the region. They should be guided by principles of reducing inequality, increasing social justice, sustainability, sufficiency, participation, equity, efficiency, and effectiveness both in the short and long-term.

1. Inequality, growth, and development

At the beginning of the XXI century, in 2006, of the nearly 548,723 million inhabitants of the region, 194 million lived in poverty. Of these, 71 million existed in conditions of extreme poverty. This means that 39.8% of the population, including marginalized native peoples, lived in extreme poverty in many countries of the region. At the same time, the 10% wealthiest of the population received between 40% and 47%, while the 20% poorest received between 2% and 4% of the total income of countries in LAC (CEPAL, 2006).

Although some countries have reduced the inequality between strata, in others it has persisted and increased. Neo-liberal macroeconomic policies left varied impacts and results in the countries of the region, with some of them experiencing increases, and others not. There has been a marked unequal development and a deepening of the crisis of governability in many societies; fiscal insufficiencies, problems of social cohesion, great uncertainty, and social instability. During the second half of the last century, the focuses of modernization and development of economic policies for poor countries predicted transition scenarios with inequality until achieving development, savings, and re-investment (Kutnetz and others, 1976). However, and contrary to what was expected, the impact of these policies, according to evidence from the data bases of ECLAC of the situation of the region, points toward inequality in general terms continuing, and that low family income is a determining factor and an obstacle linked to the slow and limited economic growth of countries in the region. This coincides with previous studies of growth in other regions of the world.

Subsequent studies on growth (Clarke, 1992) and underdevelopment in the region and in other parts of the world (Benabou, 1996; Persson, Tabellini, 1994; Basu, 1997) link inequality with low growth and with the persistence of poverty and inequity in the long term for countries in the region (Easterly, 2002). While recent studies (Stiglitz, 1996; 2002; ECLAC, 2005) associate improvements in equity with increases in productivity and economic activity, greater rates of growth, and levels of development in developing countries.

Studies also point to the impact of inequality, as we have mentioned, on the limitation of economic growth which directly effects (Becker, Murphy, 2000; Kliksberg, 1999; Aponte and others, 2006) the development of societies in various directions:

- 1) The limitation of opportunities for participation in economic and social activities, decreasing savings, social investment, tax payments, as well as on creating conditions of viability and equality of employment (dual labour markets), for self-employment, for beginning small businesses, productive companies and services that can produce incomes in order to contribute to the tax base in order for governments to finance their management with solvency of resources in order to develop infrastructure (World Bank, 2006) as well as to be able to foster growth and to avoid fiscal crises, coordinating initiatives aimed at local endogenous development (Aponte, 2006; Bowles, 2007).
- 2) Low incomes limit consumption, nutrition, health, and the general well-being of persons. Their limited participation in the labour market, in productivity and the lack of abilities to take advantage of educational opportunities result in reduced access to secondary and Higher Education, or the limited pertinence of the knowledge that they do acquire, due to the low quality of educational services to which they have access. Thus, the impact on

citizen participation and on all that has to do with the productivity and competitive capacity of their countries in the world economy (Stiglitz, 2002; Kliksberg, 1999).

- 3) The limited capital accumulation in some sectors of economic activity that hinder redistribution of wealth, reduce possibilities of re-investment, the adoption of new modalities of production and innovation, and the provision of services to the population based on new knowledge and technologies in order to carry out domestic innovation and to raise productivity and competitiveness in the region (Basu, 1997; Arocena, 2002).
- 4) The great inequality between social strata create the conditions and dynamic for low levels of interaction between different social sectors, thus increasing conflict and weakening social cohesion due to distrust between citizens and the distance that is produced between citizens and government (legitimacy), limiting the possibilities of effective management and government. Inequality, and its accompanying exclusion create conditions of uncertainty, political tension, and scepticism regarding the future of society, with implications for instability of the society and of individuals (i.e. social capital) (Becker, Murphy, 2000).
- 5) Finally, the continued trend of inequality within societies in the region generates exclusion and low political participation and interaction of citizens in existing institutions, bringing as a consequence: poverty, the accentuation of labour and social conflicts, high unemployment, crime, high mortality rates, and marginalization.

Inequality within countries of the region is rooted in historic processes of social development, processes of accumulation, distribution of wealth, and government social development strategies and policies. Both external and internal factors influence development policies, with the acceleration of globalization and interaction between countries, and their participation in the world economy and the international community. Before the prospect of globalization and the era of knowledge, societies pass through accelerated changes and profound transformations. Economic policies aimed at creating conditions for economic growth, and to thus face inequalities and their impact on societies of the region will be determinant in reducing poverty, fostering the accumulation of local capital investment, fostering employment, raising income and improving fiscal policies for the redistribution of wealth, making viable and strengthening the role of the state in order to guide societies toward sustainable development and to improve the general well-being of the population in the long term.

2. Inequality trends in Latin America and the Caribbean

The scenario that we confront includes a set of indicators that point toward continuation of current trends. Within this scenario, inequality is established in relation to principles of democratic relations in the processes of social interaction and participation in economic activities according to what is found in the political statutes of societies. Criteria and norms determine processes for equal participation guided by justice, individual attempts to decide between options of improvement, and the achievement expectations of the society of the general well-being in regard to a better future for the members of society that sustains the pact that gives them identity, a feeling of pertinence, and their long-term perspectives of life's chances in the long run. Thus, they aspire and respond to questions of the nature of the obstacles to and challenges of development in terms of human needs: of what to do and why, for what, who, when,

how, and where, according to life expectations and those of self-realization and of what can be achieved (Amartya-Sen, 1999). The expectations of growth and development of democratic societies are characterized by the search for a reduction of inequality, exclusion, and injustice (Rawls, 1971); Habermas, 1999) in order to achieve sustainable development with inclusion and equity (Daly, 1996; UNESCO, 1999).

Political equality as stated in civil rights, participation in electoral processes, in accountability and political action in citizen organizations and non-governmental groups is based on solidarity and cooperation in order to complain, denounce injustices, exclusion, or to demand accountability (social responsibility) from other sectors in regard to the general well-being. Expectations of achieving satisfaction of needs and levels of development are negatively associated with levels of inequality, poverty, and marginalization. Overcoming inequality not only demands broadening opportunities. It also means improving infrastructure, the general conditions of life, and the confidence of people in themselves in relations with “others” and with the government. The search for broadening equality of opportunities according to the talent, the different needs and circumstances of people to respond to the needs of the society constitutes the platform and initial strategy of inclusion and equity for socially-aware sustainable development and public well-being with greater participation, social justice, and a democratic life for everyone in the region.

Due to the diversity and differences between people, equality in democratic societies is based on rights and on opportunities of peaceful relations embodied in agreements within a agreed upon social pact, and is based as well on interaction with other societies on the regional and international levels. The search for the equality of persons and of different groups with a diversity of needs and backgrounds is expressed in terms of inequality in relation to the options and possibilities possessed by members of society according to the existence, sufficiency, and access to opportunities and with equality of conditions for participation in processes and institutions, prevailing practices, and expected results in order to satisfy human needs and social equilibrium. In order to reduce inequality, we must adopt a notion of equality that incorporates criteria of diversity of needs and of equivalent forms for citizenship, and to satisfy them in regard to the different cultural backgrounds and life circumstances of persons and of the society (asymmetries associated with inequality in regard to economic, social, and cultural factors) for democratic sustainable development according to the use of existing resources, their distribution, and agreed upon projects in order to achieve them.

Equality of opportunities is associated with the idea of a democratic society that seeks to treat its citizens fairly, according to their expectations (goals), needs, potential, and the contributions that they make to society, its development and well-being. Access to education means access to culture, to opportunities for work, to participate in processes of change, and in collective decision-making in the face of the challenges of our time. In education, extending access through existing opportunities in order to include a greater number of people, without altering conditions of participation and improvement of achievement, according to the characteristics of persons whom one wishes to include, assumes that people, when having a new opportunity, can do so, using their strengths and overcoming their limitations. When this is not the case, as often happens, unequal opportunities are thus being offered to different groups of people with different needs from those for whom existing policies and practices were designed. “Inclusive” educational opportunities involve the transformation of institutions and the edu-

cational experience in order that they may provide a pertinent, quality response and with equitable conditions in regard to the differences of persons and of groups. Overcoming inequality (UNESCO, 1994) involves taking advantage of opportunities under equal conditions for the diversity of people who access them, taking into consideration their differences, the existence of options according to their interests, and in relation to differences in their backgrounds of circumstance, gender, ethnicity, race, language, and culture, among others.

The impact of inequality on societies can be determined in different ways. In economic activity this can be viewed through its relation with the educational level of the work force, employment, and productivity that are linked to economic growth in a society at a given time (Becker, 1972; Persson, Tabellini, 1994). High unemployment rates, low educational levels, and low salaries are related negatively to slow and limited economic growth. High levels of inequality in the population are associated with the low productivity of individuals, health problems, and dependency on government social assistance, among other factors (Heckman, Krueger, 2003). For individuals, the level of education achieved greatly determines opportunities, employment options, and participation in society. In developed countries, technicians and professionals graduating from institutions of Higher Education have incomes three times higher than those who do not have this educational background, and the rates of return on investment in Higher Education are much higher. This is why they contribute to reducing inequalities between persons in jobs at this level (Paulsen, 2000; CEPAL, 2007). People with Higher Education who fulfil employment opportunity requisites do not determine salaries, which depend on other factors related to demand and to practices of employers that reproduce inequalities in salaries and in opportunities for people to participate in economic activities and for their future possibilities.

Even recognizing the changes and progress in overcoming inequalities in gender during the past 15 years, the trend of inequality, poverty, and exclusion continues and shows its darkest side in the case of indigenous populations, those of African descent, and some immigrant groups in many countries of the region. The incomes of these groups are nearly half of their “Creole or Latin white” counterparts. These differences are most noticeable during years of schooling, in health, and in housing for these disadvantaged groups.

In economic terms, inequality is reproduced through the interaction between different populations that experience: conditions of unequal access to education, particularly to Higher Education and its high payoff in labour markets; absence in high levels of land concentration and other productive activities; limited access to financial markets and technical/professional professions; and very limited redistribution of income through the state (health, education, and housing services, among others). The increase in the value of Higher Education is attributed to the new value of knowledge and technology in the new economy which demands new knowledge and skills. This level of education is associated with the intellectual capital of companies, greater productivity and competitiveness, and continues to be more accessible for the higher income population, that has better possibilities for gaining access to Higher Education in the region (World Bank, 2007).

The continuity of inequality means that sectors of the population in most countries of the region still face different life opportunities at birth and of those acquired throughout life, which effects the potential of the growth and development of citizenship, and in most societies. Although one cannot predict the impact of inequality of opportunities in regard to the

options of citizens, the effort of each individual (the perseverance and resistance of each) in aggregate terms, the tendency in the results, demonstrates limited progress among levels of income of the groups and the countries in terms of poverty and exclusion in the region.

3. Indicators of the trend of inequality and poverty

Although existing indicators (from different sources and years) do not reflect all dimensions of the reality of inequality in the region, they can be seen as a point of departure to view the situation of inequality and to determine the impact of this trend. According to the indicators that appear in Table 1, at the beginning of the century, a large number of countries show high levels of income inequality and notable extreme poverty. One of the ways to express inequalities that exist between population groups in countries and the comparison has been the Gini Index, which may be used to estimate the differences of income that exist in societies, and to reflect inequalities of distribution of other economic and social variables. In the Southern Cone countries (Argentina, Brazil, Chile, Paraguay, and Uruguay), in spite of progress in per capita income, the Gini coefficients of poverty continue to be high. Uruguay is the country that shows the least inequality between social strata and the level of poverty, although having higher unemployment than the other countries of the group. The Andean zone shows less inequality (with the exception of indigenous groups) between social groups, but Bolivia continues to be the country with the highest poverty level (64%), large differences between strata (a 0.59 Gini coefficient), and low levels of personal income (US\$1,082 per capita annually).

The greatest concentration of inequality and poverty occur in some of the Central American countries: Honduras and Nicaragua; and in the Caribbean: Haiti and the Dominican Republic. Of the later two, Haiti has the greatest inequality, poverty, and low income levels per inhabitant. Countries such as Mexico, Costa Rica, Panama, Puerto Rico and Trinidad & Tobago have the highest levels of income, and Jamaica one of the lowest levels of inequality among the strata in the Greater Caribbean.

Table 1
Economic inequality trends in LAC
Indicators of the economic situation of some countries of the region

Country	GDP	Income				Poverty (%)	Urban unemployment (%)
		Per Capita	GINI coefficient	Q1/Q5	10% wealthiest		
Argentina	8,132	8,060	0.53	16	35	26	11.6
Barbados	6,951	19,700					9.1
Bolivia	1,033	1,082	0.59	44	41	64	6.2
Brazil	3,574	3,468	0.58	29	45	36	9.8
Chile	5,729	5,891	0.57	18	40	19	9.2
Colombia	2,153	2,189	0.58	28	40	47	14.0
Costa Rica	4,505	4,234	0.50	15	41	21	6.9
Cuba	2,798	2,818	---	---	---	20	1.9
Curacao	----	---	---	---	---	---	---
Dominican Republic	3,089	3,144	0.52	28	38	48	18.6
Ecuador	1,535	1,580	0.44	17	34	21	10.7

El Salvador	2,129	1,626	0.52	16	29	21	7.3
Guadeloupe	---	---	---	---	---	---	---
Guatemala	1,720	1,908	0.55	19	36	27	4.4
Haiti	390	480	0.59	---	---	75	---
Honduras	977	1,140	0.54	28	39	75	6.5
Jamaica	2,989	2,689	0.38	---	---	---	11.3
Mexico	5,992	6,120	0.50	17	35	36	4.7
Nicaragua	835	877	0.43	27	41	69	7.0
Panama	4,413	4,028	0.56	22	33	33	12.1
Paraguay	1,296	1,322	0.58	18	35	61	7.6
Peru	2,340	2,328	0.55	16	33	51	9.6
Puerto Rico	11,692	11,709	0.57	17	57	44	12.2
Trinidad & Tobago	9,450	9,074	0.40				8.0
Uruguay	6,084	5,970	0.45	10	28	19	12.2
Venezuela	4,939	5,524	0.49	18	31	37	12.4
Latin America & the Caribbean	4,055	4,063	---	---	---	---	9.1

Sources: CEPAL: Anuario Estadístico de ALyC (2006). Santiago de Chile: 2006. CEPAL: Panorama Social de América Latina. Santiago de Chile: 2007. CEPAL, (2005) Globalización y desarrollo: Desafíos de Puerto Rico frente al Siglo XXI. Años 1999-2000. ELA, Junta de Planificación de Puerto Rico. Estadísticas Económicas y Sociales, 2003.

The information corresponds to available years:

-Gross Domestic Product *per capita*, in year 2000 U.S. dollars.

-Income *per capita*, in year 2000 U.S. dollars.

- GINI coefficient for income distribution, Human Development Report 2006, UNESCO.

- How many times larger the income of the wealthiest quintile is, compared to the poorest quintile of the population.

-Percentage of national income possessed by the 10% wealthiest portion of the population.

- Percentage of the population living below the poverty line, defined as income lower than the cost of a basic diet of food.

-Average for the region, a weighted calculation, including some Caribbean countries.

4. Trends of inequality and inclusion in education

In order to be able to place the nature of the trend in inequality in the region in perspective, we will examine the impact of income inequality in regard to the needs of education and how these needs are satisfied by education systems. Looking toward the challenges of the XXI century, in 1996 UNESCO launched the Education for All initiative to foster the transformation of education systems based on permanent learning and self-management of knowledge in order to begin the transition toward information societies and the knowledge society (Delors, 1996). At the beginning of the millennium, a large number of countries in LAC had fallen behind in the transition toward a time when education and human resources constitute strategic keys to competitiveness and comparative advantage of insertion into the world economy. At the end of the 1990s, the International Commission on Education, Equity, and Economic Competition in LAC, created by the *Corporación de Investigaciones para el Desarrollo* (CINDE, 1995) proposed to foster the quality and development of education in order to improve the situation of inequality, poverty, exclusion, and the “competitive” capacity of the region.

The first report on the situation and trends of education, entitled “The Future is in Play”

(PREAL, 1998) pointed out serious deficiencies in education systems related to inequality, exclusion, pertinence, and the quality of education that directly influence the competitiveness of the countries in the region. Among the findings of the study that published a report, we may note that educational inequality is associated with: the low quality of teaching linked to low levels of learning and good use by students; the lack of shared criteria and standards in regard to student performance; insufficient investment of public resources in primary and secondary education compared to the priority and greater proportion in the tertiary sector; the lack of entities to follow up and provide accountability for educational outcomes. These trends of pertinence, low quality and low effectiveness in education (UNESCO, 1995) are obstacles faced by societies in order to make the transition toward the paradigm of permanent learning of life-long education for all within education systems of countries and for the construction of knowledge societies (UNESCO, 2005).

Although public investment in education systems has not been sufficient for significantly reducing inequality, progress is noticeable in most countries. One of these was the trend toward increased enrolments, but this came accompanied by high rates of grade repetition and drop-out of schools and resulted in low successful completion rates of the institutions. This is a factor that has persisted during recent years, and that represents a great obstacle for the achievement of the goals of a 75% schooling rate for the year 2010, as established by governments at the Summit of the Americas in Chile in 1998. In spite of this, the growth of enrolments and the greater number of graduates during recent years, this trend has also contributed to increasing the demand for more Higher Education (CINDA, 2005; ECLAC, 2007).

In view of the scenario of globalization of the economy for these years, this educational trend means that the labour force of the region had an average of six fewer years of schooling than their Asian and Middle Eastern counterparts. For this period, only one-third of the labour force of countries of the region had completed the 12 years of schooling necessary for guaranteeing sufficient salaries to satisfy life conditions and to progress at the pace of the international economy. According to this trend, the average schooling of the labour force increased by less than 1% during the 1990s, in comparison with annual rates for three decades of over 3% for the Asian countries (PREAL, 2001).

At the beginning of the XXI century, inequality trends in education within the societies of the region (CINDA, 2007) can be determined by observing the following trend descriptors:

- 1) The 10% wealthiest part of the population had 8 times more education than the 30% poorest; the gap widened for rural dwellers and for excluded groups, particularly for the poorest groups in rural and indigenous areas, who had the least possibilities of going to school at whatever level.
- 2) The greater the education of the wealthiest quintiles, the greater was the income gap with the poorest quintiles with less schooling.
- 3) The disparity in learning results and good use was reflected in inequalities of access to quality educational opportunities. In tests, poor students from rural areas score 20 points fewer in language compared with students from families with higher incomes.
- 4) Ethnic and racial groups appear as disadvantaged in indicators of grade repetition, school drop-out, low achievement, and low exit-graduation rates, compared to “white” and “Latino” groups with higher family incomes.
- 5) Gender inequality reflects a different tendency, in which there is progress for women in

all educational levels, including a bias toward greater participation than males in higher tertiary and university education. The trend is not observed among indigenous groups.

- 6) The inversion of public resources was proportionately unequal for basic and secondary education in regard to Higher Education. Given that places in institutions of Higher Education seem to be more accessible to students from households with medium and better family incomes, the tendency is to leave outside of institutions of Higher Education those groups that cannot pay the higher costs of private Higher Education.

Although existing indicators cannot completely represent the reality of inequality, at the beginning of the new century, some indicators show the trends of inequality in education in the countries of the region (UNESCO, 2000-2005). As Table 2 demonstrates, according to social indicators of ECLAC (2002-2006) there has been progress in adult schooling rates in the majority of societies, with the exception of Haiti, which shows that is behind by 49.85%, and Guatemala by 68.5% compared to other countries of Central America and the Caribbean such as Mexico, Trinidad and Tobago, Barbados, Cuba, and Argentina. In looking at educational inequality among participating strata in the tertiary sector, there is a large gap between the poorest and the wealthiest quintiles in education systems in a large number of countries, among which one notes large inequalities in all regions of LAC, such as Bolivia, Barbados, Chile, Nicaragua, Brazil, and Colombia. The trend is even more dramatic when one correlates participation rates in the tertiary sectors of the wealthiest quintiles of each country. The indicators show that the countries with the greatest participation at the level of Higher Education also reflect the largest inequalities between the quintiles of this sector. Relatively poor countries such as Bolivia and Nicaragua also show the trends of countries of greater enrolments such as Barbados, Chile, Brazil, Colombia, and Argentina; a trend that accompanies inequalities of income between the strata in these countries, and the favourable condition enjoyed by the highest income groups in having access to institutions of Higher Education.

Table 2
Inequality trends in Higher Education in LAC 2002-2006
Economic and education indicators of countries in the region: 2002-2006

Country	Population/ Income <i>per capita</i>		Education %2006				Poorest quintiles	Wealthiest quintiles - year	
			% GPE	Adult schooling	Primary- secondary schooling	Tertiary schooling			
Argentina	38,372	8,132	3.6	96.8	99.7-96.7	48.0	7.8	41.7	05
Barbados	269,00	6,951	7.6	99.7	99.7-101.6	31.2	2.3	48.7	05
Bolivia	9,009	1,033	6.7	96.7	96.9-79.6	35.7	1.7	50.6	02
Brazil	183,913	3,574	4.3	85.8	96.7-108.	16.5	2.4	03	
Chile	16,124	5,729	4.1	95.8	88.8-85.5	37.5	2.0	48.2	05
Colombia	44,915	2,153	5.1	91.6	88.5-69.8	23.3	2.4	45.4	05
Costa Rica	4,253	4,505	5.1	95.6	91.1-60.2	16.5	2.8	35.1	05
Cuba	11,245	2,798	8.7	96.7	97.3-84.5	24.7	---	----	
Curacao NA	181,0	8,100	-	96.5	91.2-83.6	14.8	---	---	
Dominican Republic	8,819	3284	1.2	83.7	59.3		1.8	43.9	05
Ecuador	13,040	1,535	-	91.6	99.3-57.4	---	2.5	40.3	
El Salvador	6,762	2,129	2.9	78.7	--- -54.2	17.5	3.0	34.2	04

Guadeloupe	---		---	----	---	---	---	---	
Guatemala	12,292	1,720	1.7	68.5	84.3-37.0	---	2.4	43.0	
Haiti	8,407	480	1.1	49.8	---	---	2.2	41.0	03
Honduras	7,048	977	-	75.	87.6	14.7	2.2	59.4	98
Jamaica	2,639	2,989	6.6	86.9	94.9-85.3	16.4	---	---	
Mexico	105,699	5,992	5.9	91.2	99.4-75.3	20.7	2.4	42.2	05
Nicaragua	5,396	835	3.2	66.5	80.7-54.	---	1.9	46.5	05
Panama	3,395	4,413	4.2	91.9	99.9-69.2	34.9	1.8	40.6	05
Paraguay	6,017	1,296	4.3	92.3	92.1-59.	16.5	2.2	43.6	05
Peru	27,562	2,340	3.1	89.9	99.9-85.6	---	2.4	39.6	03
Puerto Rico	3,921	8,768	7.6	94.2	93.4-94.2	34.2	1.7	59.9	99
Trinidad & Tobago	1,301	9,074	4.6	98.3	92.4-80.8	6.5	---	---	
Uruguay	3,439	6,084	2.3	90.4	98.4-98.1	36.1	3.0	34.5	05
Venezuela	26,282	4,939	-	92.5	88.0-59.3	29.1	2.5	26.8	05
LAC	548,723	4,055	----	88.0	-----	-----	-----	-----	

Sources: CEPAL: Anuario Estadístico de ALyC (2006). Santiago de Chile: 2006 CEPAL: Panorama Social de América Latina. Santiago de Chile: 2007. ELA Junta de Planificación de PR. Estadísticas Económicas y Sociales, 2003.

- Estimated population, ECLAC Statistical Annual, 2006.
- Income *per capita*, in year 2000 U.S. dollars.
- Percentage of GDP for education.
- GSR-Gross schooling rates. Human Development Report 2006, UNESCO.
- Population in primary, secondary, and tertiary education.
- Quintiles of the poorest and wealthiest populations / years.

5. Trends of inequality, inclusion, access, and equity in Higher Education

During recent decades, the number of persons who enter Higher Education has increased in all countries of the region. The rate of increase of access to Higher Education surpasses the population growth of the region, pointing to unprecedented progress in most countries. During these last 50 years, the number of 75 institutions grew to the current 5,000 (of which 900 are universities), with an enrolment of 16 million students. Enrolments in the private sector have grown more than those in public institutions, raising the participation rate in the tertiary sector to 19% (still less than one-half of that of developed countries). This expansion is characterized by an unequal distribution of opportunities of access and of participation that is shown in the participation of students skewed toward the highest income quintiles in most countries of the region. On the other hand, there is no linear relation between the level of development of countries and the level of expansion of offerings of Higher Education (per capita income and growth rates of institutions of Higher Education), leading to the conclusion that the increases are associated with sustained growth in the numbers of secondary education graduates, which as fostered a massification of offerings aimed at satisfying the increase in demand and greater diversity of Higher Education – particularly in the private sector. Finally, the increase in demand responds to the greater value acquired by Higher Education in terms of technical-professional employment due to the large demand from employers for new knowledge and skills related to requisites of qualification and performance in the workplace in a new economy characterized by innovation and the intensive use of knowledge and of technologies.

Inclusion and access modalities to Higher Education systems are guided by the principle of universal access. In many countries, the participation of women is higher than that of men, which is

also the trend in less-developed countries. The social distribution of access opportunities to Higher Education among different strata shows that the highest income quintile sends 50% of its sons and daughters to institutions of Higher Education, compared with less than 20% of the poorest families. This suggests that these families give more importance to education when making their budgets with the income or credit available in relation to family finances.

Expansion in supply is characterized by greater participation of the private sector compared to the public sector, but with more narrow coverage. In 2005, enrolments in the private sector have increased by nearly 30% and those of the public sector by 5%. These enrolments are concentrated in courses of four years or more of professional academic content. In terms of areas of knowledge, some 60% of enrolments are in business administration, management, and services; areas in which the private sector tends to concentrate for reasons of cost to the institutions, night courses for students who are employed during the day, or graduate courses for the 24-30 years of age group.

In terms of inequality, the role of Higher Education in these times is to contribute to the development of the knowledge society and to providing skills and services that are needed according to the context of the times. The creation of knowledge and its utilization in the production of goods and services; in employment training, provision of services, citizen participation, and political leadership have characterized the role played by Higher Education in our times.

Within the trends toward of industrial and information society toward those of knowledge, Higher Education develops within a change dynamic of low social cohesion, insufficiency of basic education, and exclusion from participation of various population groups. This situation limits opportunities for people to participate, contribute to, and progress in society. In spite of the progress attained in recent years, there persist deficiencies and insufficiencies of training at all levels of education, even at the most advanced levels, that exhibit a “digital gap” of cognitive capacity and of knowledge and skills between different strata in each country and between societies in the region.

The trend of the dynamic of change is re-structuring societies in this scenario of change of limited resources and new priorities in order to meet increasing demands for greater and more diversified Higher Education. Government policies have fostered the growth of institutions of Higher Education, particularly of private entities and new trans-national providers through focuses of the free market and trade activity. The de-regulation of trade, the differentiation of offerings in the absence of licensing and accreditation agencies for Higher Education in countries has increased the limitations for access to study opportunities based on inclusion and equity in quality education for different groups in society.

Inequality in Higher Education in the region is shown in terms of the existence or insufficiency of options and viability of study opportunities for people to aspire to enter institutions of Higher Education. In terms of the placement of supply (diversity of coverage) and options (diversity of conditions of participation) of access (differentiation of quality) of educational opportunities, the conditions of access depend on the combination of criteria of admission based on merit (talent) and need (economic and personal viability of participation) in regard to the resources allocated in inclusion policies according to student income and costs of studies. The merit-need relation depends available resources consigned to the offering (places) in relation to the number of people who desire to study in institutions of Higher Education (diversity-

differentiation). The places available (limited by resources) is decided by merit, together with student need (demand) and needs of the country (policies of inclusion and access to institutions). The options are greater depending on the increase in viability, and responds to the need for talent (merit) in different groups in society.

Inclusion and equity in Higher Education in LAC has been linked to the development of the power structure and interests of the controlling groups of societies. With the advent of democracy in the last century, institutions of Higher Education developed under a logic of access through talent and merit within the framework of the needs of society in order to give it cohesion, assuring its continuity, growth, and development. The right to basic and secondary education according to the resources available is found in the statutes of the countries of the region in the last century. Higher Education was instituted as a privilege and granted through individual talent and merit according to the norms and requirements of the institutional owners of political, technical, and cultural-intellectual knowledge.

The modernization of societies, with industrialization and urban life that characterized the second half of the last century, created conditions for institutions of Higher Education to provide support social transformations with training and certification of a large number of professionals for the growing needs of public, economic, and social services. The absence or insufficiency of knowledge and of services for fostering the development of society in terms of human needs induces states to subsidize with public funds the entities provided by the government to create the groups of technicians and professionals that countries needed for their development. The aiding of institutions of Higher Education with public funds, the demand for accountability for the use that governments make of public funds by the users of this service, together with demands placed by the state on Higher Education to support the development of society as a whole through its management of knowledge and services was determined by the statutes of public institutions or by the state.

Beginning in the last century, the access of talent for study in institutions of Higher Education based on academic merit acquired and certificates granted upon completion converted Higher Education into a level that awards distinction and privileges (titles and certificates) in terms of completion and entry into the workplace, political participation according to structures, the social order, and the prevailing power structures in a meritocratic society based on economic rewards that create a tendency to increase the differences between persons and economic inequalities (Roemer, 2000).

The legitimacy of the role of institutions of Higher Education rests on their performance in regard to the role assigned to them by society and in accordance with future goals and needs for the creation, custody, and dissemination of knowledge that establishes the range of functions of institutions of Higher Education supported by public resources that lend them an identity and mission. Selecting and training persons and creating knowledge for the growth and development of society through a public or private institution makes institutions of Higher Education socially pertinent and responsible for their management in terms of the social expectations and well-being of those who live in the community in which these institutions exist, as well as the society, region, and international environment with which they interact (Vessuri, 1998). The role that the institutions play rests on assumptions of the need to identify talent, classify academic performance, and guarantee results through processes of admission, assessment, and certification based on objectivity, impartiality, and principles of the equality of

educational opportunities for those who seek access, and that fulfil the requirements of entry, progress, and successful completion judged on merit and competition for the limited number of places available in relation to the social demand for Higher Education. The requirements for access, progress, and results vary, but have developed based on the notion of equality of opportunities and conditions of study in order to gauge their good use and to obtain expected results in terms of graduation rates and returns of the investment in education. The applicability of criteria for selection and access to educational opportunities assume the equality of all aspirants, in spite of their backgrounds, differences and needs.

This context determines the nature of the institutions of Higher Education, in which talent and merit are seen as individual, and precede the need for access to Higher Education, and completion becomes a privilege with the certification of graduation and ostentation of a title. Hence, talent and acquired merit are not transferable, and with certification, employment becomes a 'personal owned good' linked to direct service, both in the private and the public, for personal-private income and well-being. Service to society has a "spill-over effect" through labour, citizen participation, and taxes on income and goods, that constitutes a contribution to the public good of high value in the short and long-term. Thus, in general terms, education is considered a public good, since its value lies in the services that it provides in terms of satisfying the needs of different sectors and groups towards the well-being and development of society. The social value of Higher Education is recognized and certified in terms of the contribution that it makes in regard to social needs through subsidies, certification, or recognition of the state, or accountability entities that recognize the social responsibility and pertinence of the institutions, their programs of study, and service, as well as the graduates that they prepare. These assumptions establish the need of society for the continuity of institutions of Higher Education, for their role and contribution to the society based on inclusion by talent/merit in order to respond to the different needs of society. They justify the continuity of academia as well as the recruitment of talent with individual need and, through talent and merit, to enter studies in Higher Education.

By talent and academic certification (the custodian of knowledge, its creation, renovation, application, and utility) the person who successfully completes Higher Education will secure well-being and individual wealth because his or her "know-how" is a private good (quasi-public, at the service of the private sector or the public, acquired through talent, effort, and merit), in a society that seeks to provide well-being and development according to existing and available resources in order to satisfy the needs of all (the common good). Education (public and private) as a strategy for the development of the society is considered to be a "public good" due to its pertinence (social responsibility) and great social value that this represents in terms of the different manners in which all of its dimensions contribute to the society as a whole. Thus, what determines access to Higher Education are development needs (articulation of supply) of the institutions in relation to the educational needs of the persons who comprise them. How much, and what kind of talent does a society need to recruit, train, and quality through Higher Education, and in what areas are determinant in deciding on how to allocate the scarce resources (coverage and places) of the state in face of the needs and priorities of the society for its development and well-being. The "brain drain" to other countries represents a loss of investment and of possibilities for the future of countries that need these human resources. These are decisions that cannot be left to the market and to private or group interests, for they are

state strategy (policies, subsidies, and regulation of the provision of services) in order to assure the social pertinence of opportunities for study, the quality of processes, and the competence of graduates (García-Guadilla, 2003).

In the workplace mediated by the market, a person's education does not constitute a consumable article, since it is not transferable. Although its utility may be short or long-term, it in itself cannot change, be returned, or sold beyond the services provided. The private education sector may go to the extreme of selling low-quality academic titles, the owners of which will experience performance difficulties or difficulties in occupying jobs due to lack of knowledge and skills required for proper performance. Educational training must be experienced, and cannot be acquired as if it were a ready-made suit. Institutions may compete, fail, or be sold, but they cannot guarantee execution or performance of graduates, which depends on the person who receives it through training, incorporates it, and uses it. There are different kinds of knowledge and skills, and these have a "relative autonomy" (Nowotny, Gibbons, Scott, 2005) in regard to their context, creation, nature, utility, and timeliness. In the scenario of the global trend toward "free-trade" agreements between countries, education has come to be seen as a service industry, and some of the knowledge held by professionals who graduate in the economic and commercial sector are valued as "private, intellectual property" that can be marketed at the across-frontier level, i.e., the mobility of "human resources" contained in "intellectual property" statutes and the income from their use (Aponte, 2004; Didou, 2005).

In the face of the new requisites of knowledge of interaction of citizenship and international relations between countries, particularly in economic activity and in employment, structural changes have taken place in the social needs of the population, accompanied by a greater demand for a more diversified education at the higher, professional, and technical levels. This dynamic has fostered the expansion, diversification, and differentiation of the coverage and offerings of institutions of Higher Education, sought out by students from different social groups determined by government policies and by providers of services. The localization, diversity, and differentiation of institutions of Higher Education also reflect different levels of quality (Brunner, 2005). These change and transformation processes coincide with moments of government fiscal crises with meagre resources and new public policy priorities for the development of institutions of Higher Education at a time in which Higher Education has assumed a new and active role in order to make a greater contribution with qualified human resources, the creation of knowledge, and the offering of services directed at the well-being and development of societies in the region.

6. Policies of inclusion and access to Higher Education in Latin America and the Caribbean

The option of each person to have access to Higher Education in democratic societies, in conditions of equality of opportunities, is based on recognition of diversity in human rights (UNESCO, 1999; 2001). However, the trend in access, achievement, and termination of studies in Higher Education shows that it is this educational level which most lags behind in public education systems. The notion of diversity as a human right of individuals and of groups has not been recognized in the area of Higher Education as talent has been in relation to the needs of people. The criterion of access through talent prevails over that of need, and the

merits acquired by aptitude, skill, and individual effort as seen as individual and non-transferable privilege. During recent decades, besides the criteria of gender and special needs, there has been recognition of the circumstantial needs of some social groups based on economic, religious, ethnic, racial, language, and cultural circumstances, among others. This trend has characterized policies of inclusion in and access to institutions of Higher Education in the majority of countries of the region in recent years.

Inclusion and equity in access to opportunities in Higher Education is a recent phenomenon within the international environment, and its development has been marked by recognition of differences in gender and especially of the particular needs of disabled persons with the potential to carry out advanced studies. The impact of these changes in general education has been notable, and has made a relative contribution to the recognition of these groups, in the demand for more education in the tertiary sector, and in the massification of Higher Education and its differentiation, as well as in the quality, coverage, and effectiveness of institutions of Higher Education. In spite of the progress achieved, inclusion has been generally linked to criteria of merit (aptitude), capacity, need, and diversity (conditions and viability of the opportunities for study) of excluded groups in detriment to needs for achievement, motivation, effort, experience, and the academic interests of these individuals to make options and to participate in accordance with their interest in and availability and quality of educational opportunities.

Inclusion as a strategy to reduce inequalities in Higher Education and in participation in society is linked to conditions of equity of access, participation, achievement, progress, and termination of studies. Making opportunities for study available without taking into consideration the needs of excluded groups and their levels of cognitive and knowledge gaps means offering to these people's unequal opportunities for the progress, comprehensive development, and participation in society. Problems of being 'unequal' due to inequalities linked to poverty, gender, race, ethnicity, language, or culture are not left behind by having access to and participating in an educational experience. On the other hand, depending on the inclusion measures, processes of educational cultural interaction may either reduce or increase inequalities or differences, determining the possibilities of achievement, progress, completion, and achievements. Inclusion under conditions of inequality of opportunities has the consequences of increasing repeat rates, drop-out, and low levels of knowledge mastery and skills that will limit performance, possibilities of employment, appropriate pay, and productivity of people in the workplace and in the contribution that they can make to society.

The policies of inclusion (existence or insufficiency) have developed based on geographic areas, existing infrastructure, merit criteria (individual talent, official language, availability of resources) and places available, legitimated by a "meritocracy" (selection processes and norms, assessment and departure from institutions) in Higher Education. In general terms, models of access to institutions of Higher Education have been based on the recognition of talent and of the difference of economic needs (viability of studies, particularly the financing of studies of students with fewer economic resources with economic merit to enter institutions of Higher Education).

The tendency to "equalize educational opportunities" in different areas of the world and in the region have been characterized by attempting to level the quantity of resources for persons and adjusting the existing infrastructure so that eligible candidates for study may access (options) the different educational opportunities available (a higher per capita income raises the probability and options for having access to institutions of Higher Education, the increase of

enrolment, coverage of the offer of education, and participation in economic activities and the labour force). The trend in these practices suggests that reallocating resources and modifying infrastructure have not been sufficient for students to be able to take advantage (efficiency-effectiveness) of opportunities under equal conditions (books, teachers, laboratories, libraries, technology). Equalling opportunities for study involves the distribution of educational resources in learning and in good use (cognitive development) in order to acquire knowledge and skills at the higher level, (knowledge of knowledge itself). Inequality of opportunities demands making educational opportunities more flexible and more appropriate, according to the learning needs and knowledge of persons according to “their difference of circumstances”. This is the case except for some that are beyond the possibility of change and that are not options, such as gender and some disabilities. Socially acquired inequalities, such as differences in “cultural capital” (holding abilities constant), should complement and guide policies for improving levels of health, nutrition, and education. This should be done through the distribution of income and through the re-allocation of available resources, according to requirements for the establishment policies of inclusion in and access to institutions of Higher Education. Such focuses have proven effective in Nordic countries where education is mainly public, and relatively accessible to all.

6.1. Trends toward inclusion and equity in Higher Education

Access to Higher Education in LAC has been conditioned on the records of students throughout their school careers. Participation rates in education systems fall between the primary and secondary levels, and are accentuated in the transition between the secondary and tertiary and university levels. This process varies from one country to another, according to the growth rates of the systems, ranging from 3% to 7% annually, with the exception of Brazil, where it has grown by 12%. This contrasts with Europe and the United States, which have experienced reduced growth rates and stabilization in some regions in recent years (ECLAC, 2006; CINDA, 2007).

As shown in Table 3, similar to enrolments, participation rates depend on specific national contexts, and we may note differences between systems, levels of expansion, and participation by age group. There does not appear to be a linear relationship in the region between volume of levels of development of countries measured by per capita income of the population and the level of growth of Higher Education. Only some countries, such as Chile and Costa Rica, show a correlation between the level of development achieved and expansion of the system. Other countries, such as Argentina, Barbados, Panama, and Venezuela, show great growth with relative levels of development. Others are behind in participation rates compared to per capita income, such as in Brazil, Colombia, Mexico, and Ecuador. However, the experience of most countries shows that the distribution of access to opportunities to study in Higher Education systems of the region are conditioned by increases in academic offerings that bring with them the massification of Higher Education in terms of the economic and social backgrounds of students as illustrated by the per capita quintile of households from which students come. Participation of the poorest quintile varies between one-third in the Dominican Republic and Bolivia, to less than 15% in Colombia, Mexico, and Uruguay (World Bank, 2006; CINDA, 2007).

As noted in the previous section, inclusion and access to opportunities for study are linked

to criteria of selection by talent, viability, and need in regard to the income distribution of the population. In a large number of countries, there has been a recent skewing toward greater participation of women than men. Women have attained growing access, and have demonstrated high percentages of completion, surpassing those of men in various areas of study. The progress can be divided into three groups of countries: high levels of participation (+50%) of women; relative balance; and a smaller group of countries that show a participation gap by gender. In spite of progress, trends show other dimensions in which women continue to participate more in academic areas and professional careers of services culturally associated with female activity, such as basic and secondary education, nursing, nutrition, health services, and social work than in technological areas, basic sciences, and top-level professions such as engineering, medicine, and law, which continue to be areas associated with males. Gender segregation in academic disciplines in Higher Education determines participation in economic activity, and reproduces and maintains inequalities in salaries prevailing in the labour market. In spite of the increase in participation of women in recent decades, segregation in the type and quality of work into which women enter continues to be differentiated. This is due to the existence of social, economic, and cultural factors that maintain the unequal structure of gender in access to conditions within the labour market in the region. Increasing the access of women and of other social groups to institutions of Higher Education is a necessary step in order to reduce inequality. But it is not sufficient for guaranteeing equity in the labour market, or equal pay and progress in employment (Papadupolos, Radakovich, 2005).

On the other hand, employment levels and income distribution are determinant in order to have access to public or private Higher Education, independently of cost. Participation rates are higher in countries with higher per capita incomes and with greater coverage by the private sector. In countries such as Brazil, Chile, Colombia, Panama, Puerto Rico, and Costa Rica, where enrolments in private Higher Education have surpassed those in the public sector, there is a correlation between level of income of groups of the population and a greater offer of opportunities in the private sector. The high per capita incomes of a large number of English-speaking Caribbean countries have afforded conditions for a growth in agreements between existing institutions (Barbados, Jamaica, Trinidad and Tobago, U.S. Virgin Islands, among others) and England, the United States, and Canada that include graduate programs, medicine, veterinary medicine, and business administration, among a large variety of programs, raising participation rates in the tertiary and Higher Education sector (Howe, 2005; Brandon, 2003).

In some countries in which there are resources for financing talent in order to make study possible, the intermediate quintiles may still opt for and have access to public or private institutions of Higher Education. Students who cannot enter public institutions due to limited places in them may enter private institutions. Students in the highest quintile have more options, including that of studying abroad. Various Central American countries have low participation rates, while in others in the Caribbean show progress in gender, disabled, and other age group participation. Due to rising costs for Higher Education and the low incomes of the populations of countries in the region, the increase of subsidized offerings in the public sector will be determinant in the tertiary sector of Higher Education and in its contribution to the economic growth and development of societies.

Table 3
Trends in inclusion and equity in Higher Education
Inclusion and equity indicators in Higher Education for some countries of LAC 1999-2006

Country	Enrolment in Higher Education	Higher Education				Poorest quintile 1 Year	Wealthiest quintile 5 Year				
		Enrolment in public/private		Gender women	% GDP for Higher Education			Gross participation / income rate <i>per capita</i>			
Argentina	2,010,830	79.4	20.6	59.3	0.23	38.2	8,132	1.1	05	41.7	05
Barbados	8,003	----	----	71.8	----	27.2	6,951	---		---	
Bolivia	312,769	81.9	18.1	45.0	1.50	21.3	1,033	0.3	02	48.7	02
Brazil	3,887,0022	29.2	70.8	56.4	----	11.2	3,574	0.8	05	56.6	05
Chile	537,114	29.5	70.5	48.0		20.7	5,729	1.3	03	44.9	03
Colombia	1,035,006	42.4	57.6	57.6	0.71	13.8	2,153	0.9	05	48.2	05
Costa Rica	170,423	42.7	57.3	53.1	0.90	26.9	4,505	1.3	05	35.1	05
Cuba	273,588	100	----	61.8	2,78	20.9	2,798	---		----	---
Curacao /NA	2,300	----	----	----	----	----	----	---		----	---
Dominican Rep.	293,169	46.1	53,9	55.0	0.29	19.9	3,389	0.8	05	43.9	05
Ecuador	286,954	69.0	31.0			20.0	1,535	1.8	05	46.8	05
El Salvador	116,521	32.6	67.4	54.8	---	15.9	2,129	1.4	04	36.7	04
Guadeloupe	----	----	----	----	---	---	----	---		---	---
Guatemala	218,416	51.9	48.1	55.9	---	8.4	1,720	1.3	02	43.0	02
Haiti	----	---	---	----	---	5.8	390	---		---	---
Honduras	120,012	80.3	19.7	55.0	1.20	1.2	977	0.8	03	45.5	03
Jamaica	45,770			69.9		6.8	2,989	---		----	---
Mexico	2,322,781	67.0	33.0	48.7	0.87	14.5	5,992	1.3	05	42.3	05
Nicaragua	104,403	43.1	56.9	54.3	1.10	8.2	835	0.6	01	46.5	01
Panama	132,167	81.7	18.3	60.6	1,27	21.5	4,413	0.7	05	40.6	05
Paraguay	108,812	58.9	41.1	51.1	1.00	8.3	1,296	1.0	05	41.6	05
Peru	871,145	52.3	47.7	44.	----	30.4	2,340	1.4	03	39.2	03
Puerto Rico	180,404	29.2	70.8	64.4	----	----	----	1.7	99	59.9	99
Trinidad and Tobago	12,316	----	----	61.1	0.50	6.6	9,074	----		----	---
Uruguay	105,268	90.7	9.3	61.0	---	29.9	6,086	1.8	05	34.5	05
Venezuela	997,662	59.1	40.9	60.2	---	29.0	4,939	0.9	03	36.8	03
LAC	16,000,000	53.4	44.6	----	----	16.9	4,055	----		----	----

Sources: CEPAL: Anuario Estadístico de ALyC (2006). Santiago de Chile: 2006. CINDA Educación Superior en Ibero América: Informe, 2007. Santiago de Chile. CEPAL: Panorama Social de América Latina. Santiago de Chile: 2007. CEPAL (2005) Globalización y Desarrollo: Desafíos de Puerto Rico frente al Siglo XXI. Chile / México: CEPAL. IESALC/UNESCO: Informe sobre la educación superior en ALyC 2000-2005. Junta de planificación de PR, 2003; Consejo de Educación Superior de PR, 2003-2004.

- General enrolment in Higher Education.
- Enrolments in public and private sectors of Higher Education.
- Participation of women per 100 students.
- % GDP spent for Higher Education.
- Gross participation rate in education of the general population.
- per capita income in year 2000 US dollars.
- Quintile 1 - poorest of the population / year.
- Quintile 5 - wealthiest of the population / year.

In the face of inequality in the region in terms of inclusion and equity of opportunities in Higher Education, the response to exclusion (inexistence and need) has various dimensions: geographic coverage, gender and the incorporation of ethnic, linguistic, and cultural groups- Differences in availability in different geographic areas, rural and urban, and the insufficient number of public and private institutions in capitals and large cities, and in inland towns have restricted access to educational opportunities at the secondary and tertiary levels. The growth, diversification, and differentiation of educational opportunities through higher secondary schooling rates and the increase of coverage of the tertiary and university sectors have reduced inequality of opportunity for study in the region. With the new technologies, on-line education presents a new possibility for removing the obstacles of isolation, the lack of infrastructure, and the mobility of academics and students between regions and abroad, and the capacity of the region to interact with the international environment. Although there has been progress in the regionalization of new educational opportunities in some countries, the migration of students to large cities and to abroad indicates insufficiency of coverage, and the absence of quality public institutions in a large number of areas. Inclusion in and access to institutions of Higher Education will depend upon the openness and viability of options that people have to access them. Inequality of income as an obstacle to being able to choose between alternatives of study in terms of the geographic availability of coverage, diversity and differentiation of the (public or private) offer of quality education is a determining factor in the strategies of inclusion within and access to institutions of Higher Education. The option of studying in low-quality institutions with or without subsidies for talent or need does not represent a true opportunity that results in completion and the probability of finding employment with reasonable pay.

6.2. Inclusion and access trends in Higher Education. Inclusion policies

From 1975 to 2005, enrolments in the region increased four-fold, reaching 16 million students, with a high proportion in private institutions. They are grouped into courses in the areas of services, including those of law, economics, and administration, followed by social service professions such as education, health sciences, communications, and others. Access to private institutions is directed and controlled by institutions that comply with the general requisites of entry into Higher Education and into the institution, except in cases of studies that end in a candidacy (CINDA, 2007). Inclusion and equity policies (action guideline to foster participation and close gaps in terms of gender, disabilities, ethnicity, race, language) of the countries of the region have been based on the increase of demand taking into consideration factors such as geography, the needs of those with disabilities, and gender participation in disciplines, courses, and professions.. In spite of the massification of the offerings of institutions of Higher Education, the need to increase participation in order to respond to the demands of these groups has been relative, since access to institutions, professional courses, and employment is based on merit (abilities and skills) to be able to enter these levels. According to human development indicators, indigenous peoples have fallen behind in comparison with other socio-economic groups and sectors (Ramiro, 2004).

Inclusion and “affirmative action” policies in Higher Education policies abroad have influenced governments and institutions of the region. These policies in the countries of the region to foster

the participation of excluded groups or sectors that have difficulty to enter, progress through, and conclude higher studies are concentrated in a group of countries and in others with a large presence of indigenous and ethnic-racial groups. Only a small group of countries have constitutional provisions for integrating or including groups or sectors of the population into Higher Education (Haiti, Guyana, Paraguay, and Venezuela) and that moreover guarantee gender equality and access according to gender, disability, and membership in underprivileged groups (Moreno-Valdés, 2005). Another group of countries provides financing to institutions and to students in order to foster access to opportunities for study based on talent, merit, and the academic progress of students. Policies for fostering participation include institutional funds, scholarships, credits and study loans that vary by country, region, and institution. These resources are complemented by initiatives of institutions and by the investments and spending by families and students (for transportation, food, materials, and personal items such as clothing, health, and additional costs not included or foreseen in the lives of students and outside the institutions).

Policies to foster access to Higher Education in the region include resources or combinations of others such as: grants, places, admission quotas for the participation of social groups, entry prerequisites to foster permanence in and completion of studies, and access to on-line education within countries and on the international level. With the progress of inclusion, gender equity, and that of other groups, academic studies and programs regarding the needs of these groups in academia and in the life of the institutions have contributed to the development and establishment of inclusion policies and strategies for increasing the access of these groups to Higher Education.

The groups that have experienced progress have been those of gender and students with disabilities. Most countries reflect gender standards in the enrolments, and some 20 countries of the region have included in their legal frameworks guarantees for the participation/inclusion of persons with disabilities in the access policies of institutions. Institutional policies and practices that include rights, allocation of resources such as scholarships, allocations for integration, support and service to teachers, students, and institutional management personnel (IESALC, 2005; CINDA, 2007).

Movements to foster inclusion have been influenced by university experiences in Europe, the United States, and other countries in the international sphere to remove barriers, create infrastructure, programs, and support services to students from these groups. Similar to other groups who face difficulties in access to and permanence in studies, there is a lack of sufficient data and recent information that reflect the situation and progress of some groups, which makes it imperative to resort to the institutions in order to determine the access needs and progress of students, and in particular those with economic needs in order to study in institutions of Higher Education. At the graduate and research levels, the challenge of inclusion is one of the most important and urgent in the region. Access to and creation of knowledge produced in these institutions is crucial in order to break the vicious circle of exclusion at pertinent strategic levels of knowledge such as those of training, research, and production of knowledge regarding excluded groups and the fostering of policies of inclusion and the development of diversity with equity, making it urgent and unavoidable to consider the scope of inclusion policies and access strategies in institutions of Higher Education. Although the graduate area is one of the levels of Higher Education that demonstrates growth, the determinants of entry rates of groups excluded from entry due to income and academic preparation

indicate that they continue to be behind compared to groups with greater possibilities to enter and to conclude studies at this level.

7. Trends of inequality and the dimensions of inclusion and equity in Higher Education

7.1. Social and urban inequalities

The growth of Higher Education in different regions of countries, as well as the creation of regional networks or local communities of institutions of Higher Education has made it possible to reduce the gap between academic offerings in large cities and capitals compared to those in the interiors of countries. On-line programs and new modalities have made it possible to attain access to studies for those living in different geographic areas and abroad. However, in some countries, offerings in new centres are still limited, and thus we observe the migration of students in search of opportunities for quality programs with highly-qualified teachers and the infrastructure of laboratories, libraries, and facilities linked to courses and professions that are in great demand and which tend to be located in capitals and large cities.

7.2. Gender inequalities

In education among the great advances in recent decades has been the steep increase of the participation of women in Higher Education at all levels. The participation rate went from 35% in 1980 to 53% in 2003. According to a UNESCO report on education, this trend appears to be general in countries of LAC in terms of family per capita income of societies, confirming the fact that differences in participation in Higher Education (inequality between groups) resides in income levels of social sectors and not only in cultural aspects related to gender. In countries such as Chile, Mexico, Costa Rica, Brazil, Argentina, Cuba, Venezuela, Dominican Republic, Panama, and Uruguay, participation varies between 47.3 % and 61.2 % (Rama, IESALC, 2005). This trend reflects a new dynamic in families, employment, and the relation between genders in society and its impact on institutions of Higher Education in the coming generations. Gender progress in institutions is seen in a large number of study programs, courses, and professions. However, according to recent studies, the trend in many countries indicate that the enrolment of men still surpasses that of women in areas such as engineering, technology, agronomy, the environment, construction, architecture, and the graphic arts. Trends in employment show that a male of 13 years of age or more exceeds the possibilities of employment and work of women. Among the unemployed with a Higher Education, the unemployment rate tends to be higher among women. Women not only access educational opportunities more than men; they also exhibit a high performance rate, perseverance, and income, surpassing the levels attained by men in a large number of areas of study, courses, and professions (IESALC 2005).

7.3. Ethnic-racial inequalities

Ethnic groups (indigenous peoples) show the lowest levels of schooling, indicating a high level of exclusion in education systems of the region, and which is finally expressed as one of the greatest obstacles to bring students to Higher Education. The retention/drop-out levels of educational opportunities of members of these groups are seen in rural areas. The women and poorest groups of these populations have the highest exclusion and lowest possibilities of success due to the low quality of primary and secondary education, the absence and insufficiency of inclusion and access policies in Higher Education. In spite of the progress in intercultural-bilingual education in education systems that serve this population in the region, the lack of resources and low relative quality of the public institution serving these groups are not sufficient to be able to overcome the lack of progress, exclusion, and poverty of these groups.

Ethnic inequality extends to racial groups of citizens who historically have suffered from inequality and exclusion in education systems, in employment, and also in comparison with the salaries attained by other social groups. Social inequalities occur in countries of the region with different historical backgrounds, but with the history of racial inequality and low incomes for smaller group of persons who have not attained education in spite of the progress of some countries of the Caribbean, Central America, and the South American continent (Rama: IESALC, 2005; Gentili, 2006).

Besides the differences in living, cultural, and social needs of these groups, the common denominator among them is their social and economic underdevelopment in regard to the schooling levels achieved. In terms of inclusion, the pertinence of the educational experience, school drop-out, grade repetition, and the quality of outcomes obtained by these groups are related to inequality and to the cultural and cognitive capital, knowledge, skills and aptitudes necessary in order to continue in and complete advanced studies. These are preconditions for obtaining employment and salaries necessary for overcoming their previous conditions and to be able to choose between different life opportunities in society (careers and professions, etc.) and for their participation in education, economic activity, and the political and social life of societies in the region.

7.4. Inequality of sufficiency

Policies of inclusion and of access reflect an inherited tradition regarding the identity and mission of Higher Education as being a privilege and not a right of different groups of society, and one which is a choice based on interest or economic viability. The academic criteria of merit prevail over those of social, cultural, ethnic, and racial origin and of gender. Having access to Higher Education assumes academic preparation in order to be able to enter, remain, perform, and complete the experience in order to then enter the labour market. Policies of inclusion and access have been centralized, due to the removal of barriers of geography, gender, disability, language, and the need for study for those who are prepared (selected based on talent and merit) that come from these groups. Differences in race, ethnicity, and economic deprivation by themselves alone have not been factors linked to inclusion, access, and equity in the provision of opportunities at the Higher Education level.

8. Impact and consequences of inequality, inclusion, and equity in Higher Education

Government and Higher Education institution policies of inclusion and access strategies have had little effect in terms of a large part of the population that could opt to pursue post-secondary and university studies. Most of the student population that enters Higher Education comes from the highest family income quintiles. Gender and disabled groups are those that have most progressed through inclusion policies and access strategies to institutions of Higher Education for income quintiles IV and V of the population of the region. The poorest quintiles are the farthest behind in all categories of inequality in terms of the possibility of having access to opportunities for Higher Education studies. The condition of economic and social inequality is a weighty determinant for access, permanence, good use (performance), income, and job placement in Higher Education and in work related to this level, as can be seen in the following table.

Table 4
Participation–schooling by age group and income level in LAC

Age group	Quintile 1%	Quintile 3%	Quintile 5%
7-12	93.5	97.6	98.6
13-19	68.5	72.6	83.6
20-24	16.2	26.7	47.7

Sources: World Bank, 2003; Rama, 2006 IESALC; CINDA, 2007.

According to World Bank data, for 2003, participation in education by age group showed little difference between social strata in the 7-12 age group, although it is known that in quintiles 4 and 5 there is a growing number of families that send their children to private schools with more resources and educational “quality”. However, the 13-19 and 20-24 year age groups show differences in years of schooling and participation in Higher Education. Much of the progress of the medium strata is due to the increase of offerings by private institutions of Higher Education, which has increased in recent years. The trends show that for every three students in quintile 5 that enter Higher Education, two come from middle strata and one comes from the first quintile with lower incomes. The difference between the highest income stratum and the lowest is nearly 30% (Rama, IESALC, 2006).

When one considers that the re-structuring of the economy at the world level leads countries to enter into the knowledge economy, the technological revolution with its processes of interaction of globalization and the transformation of institutions toward life-long learning and knowledge societies, it is predicted that for every five new jobs created, three of them will require post-secondary or university education (UNESCO, 2005; OECD, 1995; Reich, 1992). The structure of K-12 education and of the tertiary level remains, without providing for the transition to Higher Education beyond the talent and merit required for entry into the secondary level.

According to income distribution and population growth trends of the region, to the extent that public institutions are not able to increase the number of places available or to change access and income strategies of the lower strata, inequalities between income groups will increase when arriving at the university level, since institutions have not demonstrated the capacity to

transform themselves and to serve the students that presently seek access to Higher Education studies.

This legacy tends to maintain inequalities instead of reducing them. As seen in Table 3 above, most countries have experienced accelerated growth of private providers. Students who enter this sector come from middle and high income groups (quintiles 3-4), thus deepening inequalities in Higher Education between lower and middle/high income groups.

Recapitulation: trends in inclusion and equity

Current trends in inclusion and equity are based on the absence, insufficiency, and inequality of options for participating in Higher Education. In spite of the massification of Higher Education during recent decades, there are still groups that experience low levels of access, due to reasons of acquired social inequality (participation in economic activity and levels of income) that cause the reproduction of social and economic inequality, marginalization, and exclusion in terms of the scope and effectiveness of inclusion and access economic and social policies.

As we have argued here, although education systems of countries of the region have moved toward universalization of the general education of the population and enlargement of post-secondary and Higher Education, and in spite of having sought to improve articulation between both levels, a gap still persists between the sectors of transition, levels of knowledge and skills that, according to evidence, are attributed to the inequalities of prior educational opportunities of those seeking to enter Higher Education, professional careers, and post-secondary level technical alternative. Specialized institutions have been created to meet the needs of some groups through indigenous universities and other projects directed at the development of isolated or marginalized areas, with the support of international organizations and local governments.

Inclusion as a strategy for countering exclusion (inequality of access to study opportunities) contains various elements: policies (will and commitment to coverage, geographic distribution and scope, according to available time and resources, i.e., the scope of social justice); pertinence of initiatives, according to the needs of society, persons, groups, and sectors to be included; their visibility and financing (sufficient and adequate resources); governmental initiatives for reducing exclusion for a diversity of needs of people, groups, localities, or regions; the nature of "access" policies of institutions of Higher Education (identification, recruitment, viability, financing, retention); their transformation and completion of students who terminate advanced studies and/or placement (results) in the workplace. The pertinence of government inclusion policies determine, in large measure, access to opportunities in institutions and placement in the workplace. Therefore, focus on the pertinence and effectiveness of institutions of Higher Education should be guided by the needs of the population, of infrastructure for learning and good use in relation to the demands for inclusion by different sectors of society (Vessuri, 1998). Not recognizing the differences of conditions, circumstances, and needs of a diversity of populations assumes that talent or merit by themselves (in spite of cultural or linguistic differences or of inequalities (ascribed or acquired) are not obstacles among existing

options and considering the variety of modalities of educational opportunities that institutions offer. The differentiation of educational offerings in terms of “quality” has a direct impact of the effectiveness of institutional access policies, study opportunities, the effectiveness of the latter, and their results. The pertinence of the policies, as well as the viability of their establishment, determine in large measure the results of inclusion and social justice in regard to the expectations of those who seek to participate, to benefit, and contribute to the society through Higher Education.

The formulation and establishment of policies of inclusion and of access to opportunities to study in institutions of Higher Education as a platform for reducing exclusion and inequality (in order to respond to the new demands and challenges of the new economy and of societies in the age of knowledge) should include the participation of the sectors for whom the legislation is written in order to thus meet the diversity of their needs and expectations in Higher Education. The option of continuing one’s studies into Higher Education depends on the availability of quality basic and secondary education as prerequisites of the transition to Higher Education for all groups who enter public or private education. Thus, the goal of UNESCO in 2001 of “education for all” is a precondition for the option of Higher Education and for the goal the universalization of this level by 2021.

8.2. Impact of the trend on societies in the region, looking toward 2021

Internationally, the trend in terms of increasing access has moved toward raising participation, providing the necessary resources to make possible entry, progress, performance, and completion in academic terms, and toward removing obstacles of gender, disability, socio-economic condition, and discrimination due to race, colour, language, culture, and ideology, among others. “Tacit” and “self”-referenced” pertinence in Higher Education is in a process of transition. A “common” framework and contextual differences are very important. While in developed countries, the most notorious features of the current transformations of institutions are mitigated, in developing countries they are starker (Vessuri, 1998). The social responsibility and pertinence of Higher Education comprise a broad set of actions and processes with the objective of responding to necessary changes from their own dynamic. These actions should include articulating the new context that is appearing, and doing so from a prospective, effective approach, with a high sense of ethics in considering the challenges and scenarios of society in the face of the transformations of the epoch in which they occur (Didriksson, Herrera, 2007).

In moving toward life-long learning and knowledge creation societies, institutions of Higher Education pass through a change process – from entities based on teaching and research, toward being institutions for learning and the production of knowledge. In this process, institutions will have to revise their functions, change their structures, reconsider their identities, and redefine their missions in order to be able to reflect the “new pertinence and social responsibility”. They will have to be efficient and effective, according to the conditions of change (scarce resources and new priorities, technologies, and modalities of the management of knowledge, diversity of students, among others) all of which will have impacts on the processes of change in each institution in regard to its environment. Due to the nature of institutions of Higher Education, the process will have to come from within, with the participation and consensus

of those who work, study, and live within them, and with the support of governments, accrediting agencies, and international organizations that foster regional development (Aponte, 1996-1997).

The establishment of inclusion and equity policies, as well as strategies of access to institutions of Higher Education, bring with them changes in the identities and missions of the institutions that are necessary in order to incorporate “access” as a key element in the new pertinence and social responsibility. Equally, it is necessary to make changes in the cultures and values of the institutions in order to incorporate access as a central element of the new pertinence and social responsibility in relation to the expectations of participation of different sectors in the development of society. The importance of the changes lies in the vision of the future and alternate horizon given to change processes with a view focused on the pertinence of the market in which the criteria for “quality” are efficiency, performance, and effectiveness for “competitiveness”. This has not been socially linked (finality) with access to educational opportunities as the key to the new pertinence (participation) and social responsibility (inclusion and social justice) in development policies of societies in the new context of learning and the creation of knowledge (Didriksson, 2007).

The new social pertinence of Higher Education contains the dimension of inclusion and equity, which enlarges the notion of “quality” that prevails in institutions of Higher Education. In a dynamic of change of epoch and of transformation, some of the elements of both notions can be unified in a conception that sees the “quality” of institutions of Higher Education in function of the new pertinence of access in regard to the transition to an alternative scenario of change. According to this context, we can then state that: “quality exists within an institution to the extent that its resources are adequate, its organization and processes are appropriate (pertinent) and are directed at the successful achievement of results (efficiency-effectiveness), and its programs have a significant impact, positively changing the people affiliated with the institution and its surroundings, and that these processes are created, carried out, or modified by persons from the institution and by other processes related to its pertinence, surroundings, and social responsibility, according to its identity, mission, and integrity, and with a culture of values of shared inclusion and equity” (Aponte, 1996, 1997, 2002).

After various decades of policies of inclusion and of strategies for increasing access aimed at eliminating barriers and obstacles, the discussion regarding access rotates around study opportunity costs and viability in terms of merit, quotas, and available resources (financing) based on the “adaptation” of diversity rather than “the equality of differences”. The institutional educational culture of “equality of differences” is contrary to that adaptation of “diversity” which relegates equality and which has been the rule in a large number of educational reforms. The culture of difference, which forgets equality of conditions leads to a state in which, in a situation of inequality, one reinforces as diverse that which is exclusionary, thus adapting, rather than transforming, and creating on many occasions, greater inequalities. People are not adaptive beings. They are transformational beings in the plurality of human interaction. (Freire, 1997; Flecha, 1999).

The past history of inclusion with the objective of increasing viability and access has evolved to now include the participation of students, and to providing the resources necessary to make entrance, progress, improve achievement, and completion of Higher Education in terms of academics, gender, race, culture, language, and other factors.

In inclusion policies and access strategies for eliminating barriers and obstacles, discussion on access focused on the participation of students in educational opportunities as well as on the options of groups to participate in courses, professions, research and graduate institutions, among others. The option of access to study programs, to institutions and conditions necessary to take advantage of, remain in, and complete these programs have become the most important criteria for judging inclusion/access policies and their effectiveness. Study conditions with options – viability – completion and occupation, began to stand out as successful programs and strategies for non-traditional, excluded and disadvantaged groups, through offering preparation for Higher Education, academic support with tutors, academic mentoring, and group counselling or personal guidance in order to overcome conditions and situations that hinder progress, permanence, good use, and entry of students into the workplace.

The exploration of this scenario of inequality, inclusion, and equity includes considering a set of elements and events that may occur if current trends continue. The continuity of the trend and its impact on the future can be projected in terms of the following:

- Continuity of the growth of offerings of Higher Education (costs, viability, and opportunity conditions) with growth rates of the economy in regard to the demand for study programs, courses, and professions; the knowledge and service needs of different income levels of sectors and groups in societies; the growth rates of economies (GDP, employment, others), and the distribution of income among population groups according to the pertinence and effectiveness of public policies aimed at these purposes.
- The impact of inclusion policies and access strategies of recent years have had a relative impact on gender participation and of persons with disabilities (removal of barriers, resources, and cultural change in institutions of Higher Education). The progress is also associated with the massification of Higher Education in the region (accelerated growth of the private sector compared to the public sector in order to respond to the growth in demand at the highest levels of Higher Education, together with financing modalities) that have favoured medium-income groups. The massification of supply is also linked with differentiation in quality of offerings in regard to access to public and private institutions recognized and certified by the state. Massification encourages migration of talent, a dual labour market in terms of remuneration, opportunities for progress in work, and to proceed with advanced or graduate studies in the future.
- The results of inclusion and of equity in institutions of Higher Education face new challenges for increasing access to them and to graduate more people, given the new priorities in the allocation of scarce public resources (due to the recurrent fiscal crises of states under neo-liberal economic policies) and with the expectation of improving the education system in order to attain a greater number of individuals prepared to enter, remain in, and complete Higher Education in order to contribute to society through the labour and services that they provide.
- The ineffectiveness of inclusion and equity in Higher Education transcends the determinants of massification of supply, while greater participation of the middle strata and geographic distribution in regard to the differentiation of supply (quality of programs of study). Inequality and inclusion are linked to the viability of conditions of equality of opportunities for the most disadvantaged groups for which there is an insufficiency of options

and opportunities for increasing the participation of population groups traditionally not represented in institutions of Higher Education, fostering their permanence, completion, and placement in the labour market.

- The lack of “social pertinence” and educational “quality” – in terms of capacity – to respond to “study needs” of the large number of students that massification of Higher Education brings with it is reflected in high repetition rates, low permanence (retention), and completion rates with a degree of a large number of students who demand more and better Higher Education studies. The strategies of institutions of Higher Education to increase access, and to retain and educate these students have not been sufficient. This can be attributed to: inadequate prior educational preparation (cognitive, cultural, or social capital) in the homes and the schools of students to permit them to enter and remain in programs of study, and the low capacity of institutions to transform themselves and be able to serve waves of students with unequal differentiated needs and conditions existing within a study context of “low efficiency and effectiveness” in terms of performance, permanence, and completion in a large number of institutions in the region.

8.3. Alternative scenario of inclusion with equity for sustainable democratic development for the Latin American and Caribbean region looking toward 2021: a prospective view

In considering trend scenarios, the countries of the region are passing through a period of accelerated change that make necessary a revision and up-dating of conceptual maps that lead us to a new cartography of processes to foresee, conceptualize, and act upon together. From the perspective of an alternative scenario of the trend, we propose to project the transformation of Higher Education to a new phase, not from the limits of existing reforms, but rather from a rupture that can offer a new paradigm of learning and management of life-long knowledge, with social responsibility in order to construct inclusive knowledge societies and sustainable development for all countries in the region. In the alternative scenario, one begins with the transition from “the demand of the market for more Higher Education” belonging to the current trend, to the capacity to create an offering “focused on the knowledge needs” of all sectors of society. One begins with the premise that the future is a process that can be influenced and constructed from the present in such as way that the future is not inexorable.

Looking toward 2021, the population of students of the age corresponding to Higher Education and groups of adult age will increase notably. According to demographic projections for the region, it is estimated that the population of the region will reach around 600 million persons, and the number of students in institutions of Higher Education will be 20 million. (CEPAL, 2006). The great challenge for Higher Education will be how to adequately meet the increased social demand for Higher Education according to the needs of knowledge and services of society guaranteeing inclusion, equity, and equality of conditions in opportunities for study, and overcoming trends of repetition and drop-out from studies, often due to socio-economic conditions. Moreover, there should be different cultural capitals with the flexibility to foster the transformation of institutions that can make possible a harmonization of supply of socially oriented, sufficient, efficient, effective, and high-level opportunities for “quality” study.

Higher Education inclusion and equity policies should be aimed at fostering equality of

social access to educational opportunities, for permanence, progress, performance, and that end with completion, placement in the labour market, and service to society and citizen participation. Those who take the option and are prepared for high-level study will do so in institutions with the capacity to meet their academic/professional, political/social, and personal development needs and interests, according to available resources, merit, different abilities, and equality of differences (knowledge, competencies, and skills) attitude, commitment, effort, and perseverance.

The access strategies of the institutions should establish the levels of preparation of students for entry according to their study needs (cognitive capacities, cultural differences, and interests), as well as socio-economic condition and transformation expectations of the institution. The permanence and progress of students will depend on the pertinence of the educational opportunity in terms of performance, progress, graduation, and job placement in relation to the expectations of the contribution that they will make to society.

The construction of the alternative scenario of inclusion and equity that we propose is in two phases and times. In the short term, the first phase represents the transition from the limits of the trend scenario of access and affordability of “equality of opportunities” toward the option with viability of opportunities for study with “equality of conditions based on different abilities and equality of differences”.

In consideration of the above, the basic principles of inclusion and equity in the alternate scenario are: participation, good use and completion in two stages. In the first stage, one introduces the option of access and viability in regard to good use and completion of studies.

The inclusion stage of the study option as a transition is concentrated in the amplification of access to opportunities of study of interest to students and improvement of their capacity/abilities for academic success in the short term. The expectation of participation is to fulfil expectations of academic achievement/performance of the Higher Education level through improving preparation of education for transition to institutions of Higher Education, i.e., the bridge from secondary to Higher Education. The most prepared students will have better options of study opportunities than those who demonstrate the contrary, particularly due to the limited number of places available in “quality” institutions of Higher Education, or of existing subsidies based on talent and merit. This first phase (immediate future of change) is necessary in order to improve the previous academic preparation of students (transition) to entry to the higher level. An effective inclusion policy and access strategy for this phase should respond to the following questions:

- Who and how many will be included, and what are the expectations of participation?
- What are the barriers and obstacles that must be overcome in the transition of students to institutions of Higher Education?
- To what point should the option of access to different institutions and programs of study can be extended?
- What will be the relation between access, participation, achievement, and graduation, and how and with what resources will the strategy be established?

This phase of increase in access is based on increasing opportunities for study according to the individual interests of each student (focusing on the option of choice, according to the availability of places), of studies and of continuous individual assessment in order to improve

the particular conditions of each student and the support of institutions of Higher Education for the training and progress of the student according to his or her interests, socio-economic background, and the mission and goals of the institution or program of studies selected.

The second phase contemplates beginning the transformation of institutions of Higher Education, beginning with short-term processes as a point of departure (second phase) with the time horizon of 2021. This second phase concentrates on the transformation of institutions of Higher Education according to the new pertinence of life-long learning, and the construction of democratic and sustainable knowledge societies in order to meet the goals of development for all. Inclusion policies and access strategies should be able to respond to the following questions:

- What will be the strategy for establishing inclusion by talent (“different abilities” and “equality of differences”) need and viability of studies?
- What are the transformations that must be made in institutions of Higher Education according to the new pertinence of inclusion and equity in order to construct inclusive knowledge societies in order to foster the endogenous sustainable development of the region?
- What are the determining factors of need, affordability, and financing of these projects in the 2021 time frame?

Recapitulating: access strategies should begin in secondary education with transition programs with preparation for study at the Higher Education level according to academic criteria and with conditions for the success of studies at the Higher Education level (knowledge about knowledge itself), i.e., inclusion and equity of conditions according to the needs and conditions of study, taking into account differences between groups that enter this level, and among study options (differentiation) of institutions of Higher Education in terms of the viability and effectiveness of the inclusion and equity policies and strategies of the institutions.

Access to studies and the financial resources for them should be based on the levels of income of students in relation to the affordability of “cost-sharing” of Higher Education that include:

- Scholarships, exemptions, and credits according to levels of income.
- Loans, work, study, incentives for permanence, progress, and academic performance.
- Repayment of grants and loans for service to society in distant geographic areas and to social underprivileged social groups.
- Others.

In the first time period (2009-2015), the first phase seeks to identify the students with the necessary abilities to be able to opt for and enter institutions of Higher Education, seeking to make possible the transition of conditions in regard to the general preparation of underprivileged students for transition toward the level of Higher Education. The second phase of the alternative scenario (2015-2021) of inclusion and access concentrates on the transformation of institutions in order to present an academic offering (curriculum, resources, and support) of inclusion and equity in order to arrive at the universalization of Higher Education of inclu-

sion, equity, and access to educational opportunities at the higher level “for all” of those who have “different abilities” based on “equality of differences”, attitude, motivation, and adequate preparation (capacity) and perseverance in all phases of life.

9. Guidelines for action/recommendations

In order to construct the alternate scenario and to implement the proposal of transforming institutions of Higher Education, and in order for inclusion and equity policies to have a great economic and social impact on society, with the purpose of contributing to the establishment of access strategies for Higher Education, governments and the officials of institutions should agree in their willingness to establish and begin lines of action directed toward:

- The formulation and establishment of economic and social policies to reduce acquired economic and social inequalities that are reproduced by government institutions that offer services to citizens, excluded, and marginalized groups.
- The transformation of institutions toward the universalization of Higher Education according to available resources and the priorities of inclusion, equity, and opportunities to access by talent and merit based on “different abilities and equality of differences”, viability of study in order to enter, remain in, and continue life-long studies in different levels of Higher Education.
- Increasing public funds for encouraging and fostering the transformation of general education toward Higher Education (public and private) according to the new pertinence of inclusion and equity of opportunities for study, aimed at overcoming “differentiated inequalities” in order to transform and graduate students from excluded groups and those having fewer possibilities to enter, remain in, and progress through their studies.
- Complement the affordability of state subsidies with the contribution made by students to share the costs of access to and study in institutions of Higher Education by means of different modalities of financing such as scholarships, loans, work-study, vouchers, credit, and contribution incentives, repayment of costs through work, services to regions, localities, or groups that can foster the reduction of inequality, and provide citizen inclusion and access to education, including Higher Education.
- Foster research, creation, and dissemination of knowledge in order to promote inclusion and equity of opportunities in Higher Education; the transformation of institutions, methods, organization, academic culture, training and assessment of the classroom management of teachers, assessment of students, and support services in institutions in order to improve their efficiency and effectiveness in terms of “differences of abilities and equality of differences” related to the study conditions of students.
- Increase resources in order to strengthen and broaden the scope of observatories for developing data banks, regional maps, and tracking trends of Higher Education in the region in order to complement the efforts of governments, institutions of Higher Education, and regional and international organizations.
- Develop and strengthen initiatives of collaboration and networks in order to face the situation of geographic and regional asymmetries in terms of study opportunities for groups

that are socially and economically disadvantaged due to gender, race, ethnicity, language, religion, and others.

Inclusion policies should emphasize the creation of life conditions and academic conditions necessary in order to foster access to, permanence in, and graduation from institutions of Higher Education for all for life-long study through different modalities for the provision of this service. “Option” and “affordability” strategies should foster the efficiency and effectiveness of institutions guided by effort, commitment, perseverance, performance, progress, and graduation of underprivileged students, using incentives, subsidies, and loans by levels of income in order to share the costs of study with students, sponsors (family, local and international financial entities, and others) or in relation to the probability of the capacity for the future repayment by graduating students.

10. Final considerations

The society of life-long learning and knowledge will be as we wish it to be. We need to become aware of the responsibility that is involved in the continuation of the current scenario of exclusion, inequality, and marginalization of sectors of the populations of countries in the region. We are responsible for what we witness, create, and make possible, as well as for what we do not choose to do. In the era of knowledge, all of us need to have access to knowledge; to its processes of creation and dissemination, in order to be able to broaden the bases of democracy and of participation of all in the well-being that our countries achieve. All of us must participate in building the future so that knowledge societies may be inclusive and equitable, and for sustainable development to be a reality in the countries of the Latin American and Caribbean region.

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Chapter 5

SCENARIOS OF DIVERSIFICATION, DIFFERENTIATION, AND SEGMENTATION OF HIGHER EDUCATION IN LATIN AMERICA AND THE CARIBBEAN

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In order to go beyond a short-term view in the analysis of the problems that affect Higher Education in Latin America and the Caribbean, this document proposes some basic guidelines for analyzing the processes of diversification, differentiation, and segmentation of its systemic areas, giving special attention to university institutions. The major question is: do current institutional formats serve to support the design and implementation of sustainable development policies linked to general well-being, the construction of democratic citizenship, and the configuration of a new architecture of inter-culturality? Within this perspective, the argument seeks to arrive at a preliminary response, and begins with a recognition of unique features that, as a consequence of historical developments, make it possible to carry out a comparative examination of different national realities. However, while seeking to avoid the explicit consideration of a set of self-referenced dynamics and a judgement of their concrete circumstances, the objective here is to lay out a holistic view regarding concrete phenomena; a view that goes beyond the limitation of immediate circumstances in order to focus on durable and general trends.

1. The stratification of Higher Education

The current nature of Higher Education in Latin America and the Caribbean is much different than that of only a few decades ago. All evidence indicates that older university structures have recently been shaken by complex and unforeseen social processes that have brought about fundamental strategic realignments. An important consequence of this has been the emergence of sectoral policies that have produced marked disparities of institutional formats that coexist with difficulty within different national systems, and which have come to be characterized by the existence of both inconsistent organizational styles and dissimilar legitimation resources that express divergent social and functional specialization objectives.

This intricate educational terrain involves the activities of entities both public and private, lay and confessional, autonomous and dependent, national, provincial and municipal and of elites and masses. It involves research and pure professional training; broadly and narrowly defined disciplinary scope, state financing as well as private financing, non-profit and for-profit institutions. It encompasses policy making based on both the academic community and on business management. The steady movement in these directions has produced a highly dispersed and complex situation. Added to this in the recent past is a strong trend toward the transnational supply of education, geographically located at a distance, through various programs leading to advanced degrees.

Attempts to systematize the nature of this universe have resulted in different qualitative classifications aimed at establishing a taxonomy of institutional prototypes. For example, by examining the scope of commitments and working areas we may distinguish large universities that are generally public in nature with both undergraduate and graduate courses, research, and extension, covering a wide span of essential knowledge. Other modalities are organization-

ally more limited or incomplete, offering degree courses in select disciplines only, or cultivating knowledge and carrying out teaching activities in a single specialized area (Brunner, 1995). In fact, in regional terms, institutions of Higher Education differ in a number of ways – in their purposes and circumstances of their creation, in their organization and declared objectives, in their size and means of financing, in their adaptation to their physical surroundings, and in their special connection with the needs of their environment.

As a corollary of this variety of weakly-structured situations, the idea of the university itself, which had in the past been generally agreed upon and endowed with a clearly valorative connotation, has in common use come to be seen as an imprecise conceptual reference, not always accepted, and frequently confused. In this sense, one can declare unequivocally that in the recent past the novelty in the fashioning of systems of Higher Education has been the adoption of marked forms of stratification; that is, the presence of significant discontinuities in their organic structure, in the way that university posts are hierarchically ordered in overlapping levels of merit, in the differential attributes of their academic options, in the definition of their social missions linked to the distribution of knowledge, and in the perception of transcendence of the general and particular benefits associated with their possession.

Stratified systems bring together centrifugal processes of organizational diversification (heterogeneity of the types of Higher Education institutions recognized by national law), differentiation of institutional missions (variability of basic orientations, attributes, and qualities adopted by institutions of Higher Education) and of social segmentation (specialization of the explicit social scope of educational enterprises). Such phenomena are not variations developed over time or regular alterations based on the strategic missions of institutions, of academic practices, of ethical precepts, or of discursive and symbolic notions that have in the past characterized the traditional university. Rather, they are unique events, susceptible to being disaggregated analytically, and which in varying degrees can be observed in most Latin American and Caribbean countries and marking in each of them a move toward new organic models made up of subsystems of contrasting magnitudes, weakly integrated, at times in conflict, and in general lacking the possibility of synergy.

2. The expansion and division of systems

According to available information, since the beginnings of the 1950s to the present, the number of students enrolled in Higher Education went from something above 270,000 to a figure exceeding ten million. This represents a change in the gross rate of schooling from 2.1% to the current figure estimated to be above 20.5% among persons from 18 to 24 years of age. During the same time, the number of legally recognized universities grew from less than one hundred to nearly one thousand, and a total of some 4,500 tertiary level institutions. Among university institutions, some 600 are private and have approximately two million students. The nearly 400 public universities have four million students enrolled (López Segre, 2006, Fernández Lamarra, 2007).

Such growth in the region has been explained basically by the interaction of three key social and demographic factors: a significant increase in the school-age population in the years leading to the university or other forms of post-secondary training; an accelerated feminization of enrolments associated with important cultural changes in the workplace; and the need to

expand schooling to advanced levels in order to achieve training levels currently demanded by more sought-after and better paid occupations in the labour market.

In response, saturated educational structures must adjust to a reality marked by the presence of broad contingents of young people interested in obtaining certification of knowledge and professional skills in order to improve their employment opportunities and satisfy expectations of increased social mobility. The unprecedented growth of sectors demanding Higher Education, in fostering increased pressure on traditional university structures not only resulted in their sudden expansion; it also provoked a dynamic of diversification of systems based on changes in legal and regulatory frameworks of university structures and in the sudden increase in the number of qualified institutions, particularly through the development of private institutions, generally in educational areas of low operational costs. At the same time, as a result of this same phenomenon, other post-secondary possibilities have appeared that are of short duration or on the non-university tertiary level (technological institutes, in business and administration, polytechnic schools, teacher training centres, etc.) able to meet vocational and professional training needs in training areas apart from the traditional courses that have in the past been based in conventional universities.

Moreover, the multiplication of institutions has caused a qualitative change in the marked differentiation of systems, which have come to be made up of entities that do not share common objectives and which are increasingly heterogeneous in terms of their declared purposes with the resultant loss of meaning traditionally shared by universities, and the establishment of a plurality of alternatives of unequal strategic orientation and prestige. Frequently, the fragmented and asymmetric institutional goals of Higher Education have come to be validated and hierarchized by the appeal to a new rationality linked to the scale of the social circuits in which they exist, to the particular interests in which they a determining role is played by the differential weight of the possible occupational future of courses and by the finances available to students or their families. The latter can be examined taking into consideration the contrast shown by the fostering in many institutions of a concept of quality that seeks a pragmatic re-functioning of Higher Education and of its organizational paradigms, where the key problems are no longer those of a universal character linked to democratization of access to knowledge, the search for academic excellence, and social pertinence; but rather the exclusive utilitarian valuing of educational processes and of degrees as instruments for seeking individual success.

Linked to these conceptual disaggregations, we may look at another dimension: the segmentation of systems caused by the specialization of scope - both social and cultural - of educational institutions. The current student population, made up of individuals of diverse social backgrounds, is not comparable to that which in the past made up the smaller, elitist, and uniform university student body which came from a limited sector of society and from a homogeneous cultural background. The marked increase in enrolment of groups previously left outside has resulted in it now being composed of a growing number of people with low levels of cultural capital, with difficulties in their academic backgrounds and possessing more uncertain expectations of the future. Most of these individuals are part-time students who are obliged to divide their time between academic demands and employment, and who find in the more traditional universities a predominance of educational models designed at another time and aimed at attracting young people who are highly dedicated and able to study full-time. Therefore, these individuals do not progress through programs at the rate for which the programs were designed, and they experience difficulties of assimilation.

lation that raise the risk of failure, of low achievement, or drop-out. In line with this situation, a dynamic factor from which the expansion of education systems has been nourished, is the development of institutional proposals of very disparate importance, reputation, and quality, placing them in a gradation of lower and higher categories developed in correspondence with considering the habits and possibilities of consuming educational offerings imputed to students coming from different social and cultural segments.

Tensions in the organization of systems, caused by these radical changes connected to quantitative growth, are not conditioned exclusively by the appearance of new private actors and the proliferation of headquarters and sub-headquarters of institutions. In addition, systematic processes of stratification can also be seen in the creation of new public institutions with targeted social purposes and in the experiences of disarticulation or fracture within many of the most solvent structures of traditional universities. In these cases, groups of professors and students face cases of extreme discrimination associated with the more complex multifunctionality that have been adopted by educational institutions, resulting in unequal value estimates of different academic activities, in the privileged symbolic management of the range of professional fields consecrated by custom, and in the division of prestige and material benefits founded upon estate and corporative based judgements. All of this is constantly translated into unbalanced institutional arrangements and into a propensity for the compartmentalization of university life into a plethora of internally divided levels distant from each other, with little communication and affinity without mobility between them, and that results in the absence of a common, stable, and harmonious horizon for the actors involved.

The meaning of university systems: structural incongruence in the case of Brazil

A set of institutions makes up a system when they are organized into an organic structure and articulately operate organically conceived functions that permit or induce collective and global (that is, systemic) behaviours. It is therefore opportune to ask whether in Brazil a university system exists, or whether one has merely a set of institutions, levels, or procedures grouped through using common definitions and normative types. In a more radical sense, one may ask if each university is composed internally as a system; that is, if it systematically carries out its purposes.

These questions are posed in order to elucidate two aspects. The first deals with the correspondence between the constitutive concept of universities and what they in fact are. The second concerns the decision-making processes of institutional policy that reflect or can lead to the observance of this correspondence. As we know, the conventional concept of universities defines them as pluri-disciplinary institutions of Higher Education that have the basic functions of carrying out activities for the training of participatory social actors, in the sense of the transmission and application of established values and knowledge; of innovation and specialization that have to do with advancing the frontiers of knowledge and of artistic accomplishment; and of extension, which seeks to apply the knowledge and skills available in the university to external activities of a social and cultural or scientific-technical nature. In this real context, differences between institutional predispositions inherent to performing these roles create tensions and contradictions that are not always compatible.

The association between training and research activities is among the dimensions of the Humboltian concept of the university. Normally, in most universities such a proposal is not satisfactorily fulfilled, whether because research activities are of little importance, since most professors do not dedicate themselves to this, or because this activity is concentrated in areas relatively isolated from training activities. Most of these universities are above all teaching institutions. They are, therefore, part of the socio-cultural apparatus of acritical consolidation of current values and socio-cultural relations.

More recently, what one sees is that the criteria of relevance and pertinence are inspired by a certain pragmatism, and the tendency prevails to emphasize training based on the acritical transmission of skills considered practical and useful in regard to what is supposedly necessary for professional performance. In the better prepared universities, or those that have greater interaction with institutions on other continents, such a tendency is justified as a response to what one understands to be a requisite for the participation of graduates in the processes of globalization – or to be more precise, in globalized labour markets. In this sense, the “schooling” components of Higher Education training are intrinsic and essentially conservative. Thus, if this training is the principal activity of a university, such an institution cannot be generically characterized as a centre of intellectual innovation and of the creation of knowledge.

Source: **Antonio MacDowell (2007)**

3. The nature of recent changes

Beyond the recognizable, and in many senses, current virtues in the history of a broad repertory of influential experiences, there is a recurring claim that the most solid and highly valued universities, especially the public ones located at the centre of Higher Education systems, have operated for more than a quarter of a century under the influence of multiple crises that have raised questions regarding their efficiency and current states. Even admitting that one is dealing here with organizations that are not very permeable and strongly resistant to change, they find themselves pressed by the need for reforms aimed at allowing them to be more responsive to the renewed demands of society, to regional and local peculiarities, and to the dictates of the specific publics with which they are associated.

Within the context of an era marked by radically new economic, social, and cultural transformations, very far from what heretofore have been faced by institutions of Higher Education, what now guides the ways in which they are questioned is the generic explanation of their purposes, more than the improvement of one or another isolated aspect of their functioning. The resolution of problems related to the deterioration of their forms of government and management, to their ability to obtain sufficient financing, to the decline of academic productivity, to the difficulty of satisfactorily fashioning their courses of study in order to accompany changes in the structures of professions, to the relevance of scientific knowledge, to new meanings of cultural pressures and the commitment to modernity, among many other themes, have raised a large controversy. Within this change-driven environment, from different theoretical perspectives and as a function of a highly diverse set of interests, university life has been placed in grave doubt and submitted to rigorous examination.

At the end of the previous century, most Latin American and Caribbean countries witnessed a wide variety of Higher Education policy decisions and reform activities coinciding with the liberal attitude of governments and their wish to minimize their participation in social and economic areas. The arguments put forward to criticize the prevailing models of state organization of university institutions emphasized the lack of functionality of the latter in regard to policy proposals aimed at reducing the operative structures of the state and at adjusting public spending; the bureaucratic and corporative hypertrophy endemic to universities, beyond any kind of external control; their high cost, transferred to taxpayers as an unnecessary burden; their exorbitant sizes, a consequence of a deficient selective capacity tied to the providential concept of Higher Education as a basic right of all persons.

With this critical vision linked to the neoliberal view of the world, substantially backed by the powerful influence of the World Bank, the Inter-American Development Bank, and other multilateral lending institutions, a series of mechanisms and government actions were activated aimed at tacking together results and impacts that would make it possible to reduce pressures on public finances and to distance the public sector from the educational sphere in order to open it up to private enterprise, to user choice, and to the discernment of the market. In this way, in a number of countries, Higher Education sought to transform itself into a marketable good aimed primarily at satisfying the goals of individual fulfilment. Students could then be seen as consumers, free to select from among educational offerings those which maximize their competitive advantage in society, while private providers were in a position to take advantage of the possibility of entering a promising field of demand in which to materialize utilities stemming from the mobilization of additional resources on the part of users and their families.

Assuming these criteria, that involve the unprecedented participation of the private sector in the Higher Education business, the backwardness of the former beneficiaries, backed by state intervention, and the pre-eminence of new agents of social control, a principle appeared in the catalogue of public education reform policies a repertory of potent forms of linking Higher Education with the logic of the market: the charging of fees by public entities, the de-regulation of systems, competitive diversification of the types of institutions, incentives for private initiatives aimed at selling educational services, openness toward transnational providers, and adaptation of quality criteria to include cost-benefit calculations. In many countries there were attempts to present with organizational policies and schemes of this kind a new pattern based on the gradual deterioration of public universities and on the growing substitution of private sub-systems.

Thus was weakened the idea that Higher Education is a public investment necessary to foster the key role of learning as a motor for growth and for improving the living conditions of societies. This is of particular importance when the core of science, technology, and intellectual effort in a region is located within a few dozen complex, large-scale, general state controlled institutions that, confronting severe financial difficulties, embrace different areas of knowledge and bring together the most prestigious accumulation of scientific and technological courses, are responsible for the vast majority of postgraduate academic programs, and account for more than 70% of research taking place in these countries (García Guadilla, 2002).

A long history of international experience demonstrates that the creative availability of knowledge aimed at solving problems, the training of competent professionals and scientific and technical personnel, has direct and positive impacts on economic productivity, social well-being, incomes, employment, and the economic competitiveness of countries (UNESCO, 2006). Measures nor-

mally used to quantify national development show that the most essential means of production are the skills that men and women acquire through education, experience, and training.

However, although circumstances have varied from one country to another, a paradox lies at the heart of the problems faced by Latin American and Caribbean universities. In their statements, governmental authorities insistently emphasize the importance of knowledge as a key to seeking economic achievement and collective prosperity. Very frequently, however, the development of institutions has not been identified with the general interest, but rather with private and exclusionary ends. Thus, most Higher Education policies have for a long time been determined by will to reduce state responsibilities and allow them to be gradually transferred into the sphere of private initiative and management.

The impact of this sequence of liberalizing changes in the provision of Higher Education was one of the many factors that in the recent past reduced the commitment of governments to guarantee not only legal rights of citizens, but also areas of life protected in order to secure improvements in living conditions within a society of shared development. Thus, in this dominant perspective, fostering a social ideal infused with mercantilist values, the range of the missions of universities no longer made reference to the public meaning of their actions; that is, to the transcendence of their contributions in regard to the general needs of the reproduction and progress of society. The visible result has been that, in regard to these purposes related to the common good, *there* has been an increase in the declining prestige of universities of the region, with an alarming increase in the difficulties of local systems of knowledge to respond to the most keenly felt demands of societies.

Consequences of the agenda of modernization of Higher Education during the '90s: an example from Argentina

The reforms fostered by multilateral agencies in Latin America and other regions of the globe are based on global, universal, and homogeneous diagnoses. They are characterized by a type of economicist, ahistoric discourse that denies cultural plurality, aimed at the privatization of public universities and guided by the pragmatic recognition of the market as the only source of "innovation and quality".

- They have harmed academic traditions and have had a negative impact on development in the fields of culture, science, the arts, letters, social studies and the basic sciences
- University offerings have been diversified, although they reproduce in a uniform manner short courses with an emphasis on the services sector (administration, marketing, computer and communication sciences), while at the same time reducing offerings of courses in the cultural and/or scientific fields;
- They have discouraged, either due to lack of financing or of supply, graduate courses in the areas of basic and applied sciences, while there has been a proliferation of graduate courses offering professional training;
- Public universities have lost prestige as training institutions for the "national managerial class", directing elites toward some new private universities and toward graduate study abroad (primarily in the United States);

- There has been a diversification of offerings in non-university Higher Education, with a strong private orientation in terms of institutional expansion of the sector and of private enrolment, without having a significant impact on the historic orientation on teacher training played by public, non-university Higher Education;
- The increasing role of women in university and non-university education is a notable trend from a social and economic standpoint, since women outnumber men in both admission and graduation, with the exception of the applied sciences.

Source: **Marcela Mollis (2007)**

4. The new international division of the academic labour

The world context directly influences the forms assumed by the processes of stratification of Higher Education on the continent. Currently, the countries of Latin America and the Caribbean face one of the most difficult challenges in their histories – that of the hegemonic forms of globalization, understood as a new world order fostered by the dynamic integration of the productivity of transnational capital with the accelerated and overpowering growth of information and communication technologies. Eclipsing the features of the industrial era, the expansive force of globalization not only overcomes national economic barriers, seeking to synchronize markets throughout the world; it also transcends legal frontiers, restructuring the broadest expressions of social and cultural life of all countries. But its impacts have been varied within different geographic areas and within societies, accentuating imbalances and worsening the already oppressive living conditions of immense contingents of the world population, erasing local identities, profoundly changing cultures, customs, and ideologies, increasing the capacity to dominate of the more prosperous economies in which are concentrated wealth and the advantages of innovation (Tünnermann, 2004).

Faced by the influx of the rapid consolidation of this state of affairs, educational activities have come to be implemented in societies that are increasingly interdependent and in national states with their normative capacities gradually diminished. It is an incontestable fact that the phenomenon of globalization has created strong pressures toward subordinate internationalization of Latin American and Caribbean universities within a growing climate of mercantilization of the production and use of knowledge. This is expressed in the disparate conditions and the differences of opportunities presented by the new international division of labour in terms of Higher Education and research, accompanied by serious problems that foster the deepening of asymmetries and gaps in the region compared to the industrialized countries:

- The increasing growth in the world gap in the generation, possession, and management of knowledge, as shown in the imbalance of resources applicable to research and development, in the privileges of protection of intellectual property rights, discoveries, and the use of patents.
- The supremacy of market principles and mechanisms as a reference for defining, conditioning, and discriminating priorities for training in scientific and technical skills in selected areas that are related to the comparative advantages attributed by the developed world to weaker or poorer nations.

- The concentration of significant decision making power on the direction of academic and science policy by specialized agencies of more advanced countries in the hands of multilateral credit agencies, financing agencies, and other supra-national actors.
- The powerful transnational fostering of models of scientific legitimacy, the distribution of academic recognition, and material benefits for institutions and persons, very frequently with little concern for socially responsible ethical imperatives that should guide Latin American and Caribbean science as question of citizen control and public domain.
- The expansion of the across-border supply of Higher Education as a homogeneous and dislocated commercial merchandise that has been added to priority areas of multi-national agreements for the liberalization of trade in services within the normative framework of the World Trade Organization, or gradually incorporated as a tradable goods in many intergovernmental free trade agreements signed in this region with developed countries.
- The development of unbalanced cooperation policies, fostering academic models for Higher Education and research fashioned in developed countries and poorly adapted to the particular needs of societies located in geographically dependent areas.
- The fostering in industrialized areas of practices leading to attracting highly-qualified professionals and scientists from poor or transitional countries. This has generated a brain drain that for the latter countries involves the weakening of their human resources base necessary for achieving prosperity, and the loss of the economic investment involved in their training.

At a time when developed is based on knowledge and its applications, the impact of this situation has been to deepen dependence on scientific and technological progress produced in the industrialized countries and has led to a lack of knowledge adjusted to the varied circumstances of underdevelopment. In view of the fact that the world increasingly depends on knowledge, the complexity of which increases as well, it has come to be understood in a restrictive sense that the responsibility of Latin American and Caribbean countries should be limited to train competent and pliable groups whose worth lies merely in being sufficiently qualified to keep up with cutting-edge research taking place in offices and laboratories in the developed countries, and to attempt adapt them to local uses (BM, 2001).

In parallel with this, and employing a similar reasoning, it has come to be understood that the best expectations in regard to the institutions of Higher Education of the region may be fulfilled through signing association and aid agreements with the great institutions located in the more privileged areas of the planet, establishing plans for activities in consortiums that make possible the assimilation of knowledge generated and accumulated within these vigorous academic environments (UNESCO, 2005). The educational institutions able to create effective interfaces with world centres of knowledge and better able to comply with the demands for adaptation to the imperatives of global processes, tying themselves to the premises of functionality and subjection of these centres, will then be adequately prepared to aspire to connect themselves to the privileged circle of the advanced models of the most prestigious world-class universities.

A troubling and undesirable consequence of these unequal relationships between non-comparable organic structures is the increase in the cognitive gap at the world level, as a consequence of the acritical transmission of knowledge and of its modalities of production. Herein lies the risk of low pertinence or discontextualization in the face of different realities, such as those shown in the least developed countries. However, there is no doubt that currently, the future of Higher Education is closely linked to its propensity to interact on the international

plane, integrating to teaching, research, and community service an international and intercultural dimension that aids in improving academic quality.

Not attending to links of this type would mean for universities the destitution of their possibilities to mobilize necessary capacity in order to influence their development and to have access to vital reserves of knowledge. In this sense, one may affirm that the multi-dimensional problem presented by the process of globalization of Higher Education, and the exhaustion of the old protection of national frontiers make it necessary to develop original formulas leading to fashioning a positive platform in order to assume the challenges and take advantage of the opportunities offered by the internationalization of systems.

Accordingly, a key point is the construction of the strategy for a new and convergent regional scenario that makes it possible to develop broad and efficacious responses to the challenges of the world context. This means that institutions of Higher Education in Latin America and the Caribbean should no longer be conceived as the sum of insular social entities linked to exclusionary territorial areas and to purely national realities. Rather, they should be seen as the components of a constellation of entities structured into horizontal networks with the ability to create links and to develop cooperative activities that make it possible to improve the terms of exchange within the global environment and to develop the ability to bring together the strengths of each institution for the benefit of collective objectives of academic attainment.

Challenges to regional cooperation: the case of alternatives for Caribbean universities

The Caribbean is an intercultural area with considerable wealth that can be used in the name of complementary regionalization for mutual enrichment and even become a privileged area of intercontinental connections. Effective regionalization of the Caribbean requires overcoming historical and geographic factors: insularity and language diversity. The region is currently at a cross-roads that, if faced with creativity, can effectively make it a bridge and a point of intra and intercontinental encounter. Culture and language can then become two pillars able to be mobilized with boldness.

Taking advantage of multiple languages and the multiple cultures that sustain them is without doubt the most obvious pillar. The Caribbean embraces six languages, three of them official ones of the United Nations. In the global world of communications they occupy a key role in every sense, from commerce, to basic research, including the entire field of the disciplines of development. Professionals armed with these tools would acquire great versatility, highly advantageous for exchange with the rest of the world. Not to speak of all of the cultural wealth that is a product of a history of encounters and mixtures that have placed the Caribbean at the heart of intra-European relations for more than three centuries. Today, these links which have Balkanized the Caribbean politically can be converted into great advantages in order to unite worlds, interests, and markets, as well as cultures and projects. Systematizing the study of the three international languages, introducing the study of different histories into the curriculum of all universities of the area, fostering regional experiences and exchange for students, making possible collaboration on themes of absolute priority such as respectable tourism or the protection of fragile ecosystems are only some of the advantages that could be derived from such activities.

The second pillar is the privileged contact of the Caribbean with major world centres. Added to its historical inheritance are new opportunities of a globalized world, stratified on new hierarchical bases. Regional and sub-regional collaboration, when they do not replace bilateral relations, strengthen them. Within this perspective the Caribbean, embedded in Latin America, but located at a crossroads of the world, can provide the entire region with elements for dialogue and renewed relations with both North America and Europe. Strengthening Caribbean identity for it to become an established interlocutor with others, taking advantage of historical links in order to develop this identity (the Francophone and Commonwealth areas should be mobilized to every extent possible in order to strengthen this project) are ambitious, but unavoidable tasks.

Reorganizing the Caribbean university system based on these pillars of confluence is the challenge that calls upon all regional cooperation entities such as the Conference of Rectors and Presidents of Caribbean Universities (CORPUCA), the *Agence Universitaire de la Francophonie* (AUF), and the *Organisation internationale de la francophonie* (OIF).

Source: **Sabine Manigat (2007)**

5. The logic of change

The construction of a sector of production and transfer of knowledge related to economic growth, social development, and endogenous modernity is at the centre of all discussions on development. However, fostering market mechanisms as a reference for defining the priorities of academic and scientific activity in national contexts, disparate conditions in the mastery of knowledge, and the differences of opportunities upon which the current international division of labour in Higher Education and research are based are factors that combine to define the dramatic inequalities and the isolation of vast areas of the world which threaten to deepen exponentially (BM, 2001, UNESCO, 2005).

In the case of Latin America and the Caribbean, we live in increasingly dual societies in which contrasts have increased between a small number of individuals able to adequately function in relation to the changes taking place, and the great majority who are increasingly excluded, disconnected, and distant from civilizing influences, without the possibility of influencing the common destiny and with the consequent risk for the future of collective well-being and democracy (PNUD, 2004). The 10% wealthiest of the inhabitants of the region own nearly one-half (48.6%) of the income generated, while the 10% poorest have access to only 1.6% (BM, 2007)). Some 35.6% of the inhabitants of the region live below the poverty line, with incomes of two dollars a day. This means that, although poverty has decreased by 3.3% in 2006 compared to the previous year and for the first time since 1990 effects less than 200 million people, 194 million people survive in this condition, of which 71 million are classified as extremely poor (CEPAL, 2007).

It appears beyond discussion that the sought-after macro-economic stability, policies fostering liberalization of markets, the reduction of the sizes of governments, and privatizations of formerly public sectors of production and services have been unable to solve the most serious social problems that countries face. On the contrary; when the most prosperous economies

establish the prototype of the knowledge society, all evidence shows that a regional reality affected by serious symptoms of backwardness and vulnerability in face of the possibilities of discerning and putting forth responses to the challenges of our time. Influencing this situation is the insufficient progress of education policies in the region, the limited expansion of national science systems, the weakness of technical progress, and multiple elements that, provoked by the phenomenon of globalization, result in the subordination of countries and the growing increase in the world gap that distances them from competition based on the uses of knowledge.

Higher Education can be one of the major instruments in an attempt to reverse this situation and to frame new ideas and options that foster development, in an historical period in which the added value of the utilization of knowledge incorporated into production and labour is a determining factor in the creation of wealth and in social improvement. It appears undeniable that the urgent issue is the development of the ability of Higher Education to satisfy the crucial needs of societies, preparing new generations of professionals, intellectuals, scientists, and technicians who can perform in a world subordinated by changes in capital that are incessantly processed, and with a speed unknown in history. In this sense, the pertinence of the functions carried out by universities is a vital element for placing the potential of knowledge and of Higher Education within the perspective of the rights of citizens, as a subject of public interest so that societies may rationalize their options for the future and aspire to the benefits of development.

During the coming years, in consonance with the realities of each country, the structures of university systems should change in order to respond, through the democratization and socialization of knowledge, to the challenge of contributing to the construction of shared development alternatives that make possible the improvement of living conditions within societies:

- Considering knowledge as a prism of collective well-being, of the rights and needs of people;
- making efforts for economic growth strategies to be at the service of social progress, fostering innovation and creativity;
- reducing the lack of professionals and technical personnel prepared to perform within the dynamic of new production paradigms;
- creating skills for linking academic knowledge with the economy and employment;
- assuming a humanist attitude and intellectual responsibility in connection with valuing equality, tolerance, justice, and the respect for cultural, ethnic, and religious diversity.

In regard to these substantive ends, in Latin America and the Caribbean, it doesn't seem reasonable to us to think in rigid frameworks or homogeneous organizational models of Higher Education systems, since they are invariably subject to the particular social conditions, political preferences, and political realities of each country. But beyond this notorious fact, the essential thing is that the fulfilment of university functions, understood in all their breadth and complexity, grants sufficient quality and pertinence in order to provide science, technology, and cultural goods that economies and societies require in order to not find themselves at drift in a changing world.

Priority actions for the development of equity: the case of inter-cultural Higher Education

The set of Higher Education modalities usually called “inter-cultural” (indigenous, for indigenous people, or for those of African descent) will become increasingly important during the coming years. One may predict that they will gain greater recognition from national governments, that their educational offerings will diversify, they will witness improvements in quality, although varied and certainly not satisfactory, and that cooperation networks will grow.

The probability that the above-mentioned trends will actually take place depends on various factors. The major ones are: a) lack of development of these educational modalities compared to the quantitative importance of the reference population groups; that is, accumulated and growing unsatisfied needs – not only due to the lack of attention which has been paid to them, but also because of the expansion of the number of graduates from bilingual education programs, sometimes of an inter-cultural nature; b) growing organization and visibility of the proposals and actions of indigenous groups and those of African descent, which increasingly include demands for Higher Education, aimed both at their entry into the labour market and for the training of intellectuals of the social movements associated with these organizations; growing recognition of the value of cultural diversity and of inter-culturality – both on the international level and in the region – expressed in constitutions, laws, and education regulations, as well as in international instruments.

In addition, we may predict that the actors who foster these Higher Education modalities will continue request that governments: a) produce statistics on access, permanence, and graduation of indigenous people and those of African descent; b) that scholarship programs for students, posts for indigenous teachers, and research funds be established. It is also likely that they will continue to call upon conventional universities to recognize and to strengthen cultural diversity and inter-culturality as cross-cutting concepts in their study plans and modalities of university life. It is to be expected that this will gradually receive growingly positive responses from governments in the region, from bilateral and international agencies, private foundations, and from Higher Education institutions within and outside the region.

The degree of effective development of all of these trends will depend in good measure on the progress that is made in constructing appropriate modalities of cooperation between the social organizations of these peoples, institutions of Higher Education, government agencies, private foundations, and various social sectors of national societies proactively interested in improving the quality of life that these reforms involve.

Source: **Daniel Mato (2007)**

6. Future commitments

During the coming years, the possibilities of Latin American and Caribbean development

will be tied to the ability of different countries to find solutions to at least five basic challenges that require the participation of Higher Education:

- Development of complete and stable democracies;
- expansion of citizenship within the framework of equitable and cohesive social processes;
- development of productive systems that are ecologically sustainable, innovative, and competitive in the world context;
- consolidation on the regional and sub-regional scales of broad, unified, and efficient integration agreements;
- endogenous development of modernity as a rational and systemic expression of the broadest possible range of human rights and multi-culturality.

In accordance with all of these dimensions of the move toward progress, confronting the uncertainties generated by new realities on the world scale, the reform of university institutions should play an important part, assuming that the knowledge society is a society of teaching and learning, of amplification of the possibilities of access to Higher Education, and of validation of knowledge through research, discovery, and innovation.

However, the diversified, differentiated, and segmented panorama of Latin American and Caribbean education shows, together with those complex universities that enjoy significant recognition, a broad incoherent institutional mosaic, of disparate quality, regionally unbalanced and with scant coverage, the continuance of which will lead to stagnation and vulnerability, to the prolongation of the crisis, and to the consolidation of a conservative scenario with an alarming growth of difficulties for local systems of teaching and knowledge to meet the challenges of development.

We may state that diversity is the real scenario of educational processes, and that the growth of systems, the broadening of institutional proposals, and the growing flexibility of teaching methods are key factors in democratization. One must respond efficiently to the multiple demands of training, and seek the benefits of generalization of quality Higher Education, moving it closer to the requirements of different regional realities, and adding the incorporation of underprivileged social, ethnic, and cultural groups threatened with exclusion.

Education must be sensitive to the characteristics of the styles, rhythms, and abilities of students, leading to complex organizations sensitive to potential and individual difference. But effectively achieving these objectives means overcoming the amorphous and dysfunctional characteristics of the paradigm of stratification that has prevailed on this continent, in which enclaves of quality education frequently develop within environments where intellectual apathy, lack of academic productivity, and very low capacity for innovation prevail.

Recently, it has been incisively observed (UNESCO, 2005) that Higher Education is distinguished from primary and secondary education not only by the age and level of its students, but also by its firm links with research activities directed at the production of new knowledge. Without the possibility of carrying out this function, restricting their goals to the routine transmission of proven skills, to the certification of studies, or to the assembly line production of degrees, institutions of Higher Education become reduced to the condition of centres of tertiary level teaching, which merely a prolongation of primary and secondary teaching. "The semantic confusion between Higher Education and tertiary education can have grave consequences in many developed countries that, due to a form of the international division of

labour, run the risk of limiting themselves to fostering a tertiary type of teaching in the belief that they are fostering teaching of a high level". Thus, one produces a weakening of the idea of the university, while consolidating even more the advanced state of the industrialized countries in research and in the number of researchers.

7. Keys to the structural renovation of systems

There is no doubt that Higher Education systems are going through an historic time of structural modifications that demand reflection, dialogue, and discussion regarding their scope and limitations. A different trends scenario, allowing for the redefinition of meaning of institutions, especially of universities, requires defining alternative lines of action and explicit reforms that give meaning to changes in accordance with the particular contexts of each national experience.

But such definitions and reforms should not be understood to be a simple addition of novelties. Rather, they should be a complex structure making it possible to join that which is permanent with that which is original, which contrasts that which is traditional with what is innovative, and which is not an uncontrolled and capricious exercise of the imagination, but rather the laborious and patient action of restorative will on concrete forms of reality.

Immutable educational structures not meet the present and future requirements of societies of the region. Taking a progressive approach to the perspectives of Higher Education in Latin America and the Caribbean involves laying out an extended agenda of strategic tasks that make possible the rational and principled move toward a scenario that fosters the social efficacy of the systems. In this sense, it is undisputable that necessary changes should support the idea that:

“... without adequate Higher Education and research institutions providing a critical mass of skilled and educated people, no country can ensure genuine endogenous and sustainable development and, in particular, developing countries and least developed countries cannot reduce the gap separating them from the industrially developed ones” (UNESCO, 1998).

This vitally necessary, but overdue transformation of Higher Education requires a new generation of policies for the sector that reflect a positive platform of meaningful objectives and that express an agenda of general priorities in order to bring together essential cooperation of the systems:

- Satisfy the sustained increase of the social demand for Higher Education, without changing its quality and levels of demands, increasing equity policies for the entrance and developing support mechanisms for students to aid their permanence and good performance in the systems.
- Implement new mass education pedagogical models that make it possible to raise troubling student performance and failure rates and as a consequence meet the need of having the greatest possible number of competent persons in order to improve the cultural, technical, and scientific support of the region.
- Give attention to professional competence necessary to carry out the teaching function that

fosters best performance in the development of learning, training teachers with knowledge of in-class and distance teaching methods that are accessible to students, and with the capacity to work in complex educational environments with people from dissimilar social and cultural backgrounds.

- Improve within the dynamic of systems the diversity of national identities and their collective expressions, fostering links with modernity, understood as *belief* in reason and the recognition of the plurality of cultural categories as a support for human rights and the construction of citizenship.
- Overcome the serious problems of social and ethnic discrimination, embracing the range of national and regional cultures in the context of pluralism, and thus make possible the acceptance of indigenous peoples, those of African descent, and linguistic minorities into a quality Higher Education system.
- Eliminate selective behaviour stemming from codes of exclusion or relegation founded on distinctions of gender, and utilize measures aimed at increasing the participation of women at the academic administration and governmental levels of institutions of higher learning.
- Establish an institutional architecture of national systems with the centre of gravity being within complex universities, those that possess the most recognized intellectual accumulation, fulfil undergraduate and graduate teaching functions, research, and community service in the major areas of knowledge, bringing together in this way attributes for convergence in the international academic environment.
- Reaffirm the founding principles of university autonomy and academic freedom, fostering democratic governmental and administrative processes particularly in those university institutions that have been organized on a large scale, distinguished by both increasing numbers of their academic and bureaucratic actors and the growing complexity of policy and decision-making processes.
- Eliminate the individualistic or corporatist mentalities that subordinate the general purposes of institutions of Higher Education to the particular interests of enclaves of self-interested groups, that decrease academic commitment to public service and hinder the consistent development of institutional responsibility.
- Achieve the gradual transformation of prevalent academic paradigms in the large majority of entities that make up the systems, increasing the availability of scientific resources and fostering affirmation of a concept of university life guided by the principle of pertinence, with high level academic goals adjusted to the demands of ethical rigour where the assimilation, production, and dissemination of knowledge constitute the preferred dynamic factor of their working environments and their links with society.
- Pay heed to the characteristics of an historical phase in which knowledge continually progresses and is continually renewed and in which self-sustaining disciplines and exclusionary specialties lose their meaning. This obliges systems to modify organizational formats based along classical lines, strengthening or fostering the institutionalization of new pluralistic, interdisciplinary fields organized by areas of knowledge.
- Abandon educational offerings focused on the traditional estates model of professions fragmented into clearly compartmentalized single skills based on private knowledge and non-transferable expertise, and seek to reclassify the attributes of university professions, awaken new skills, and renew system links with the world of employment.

- Develop versatile study plans, intended to train individuals to utilize on-going itineraries of the updating and renewal of skills through enlargement of graduate and continued education that facilitate life-long learning.
- Develop flexible relations and interactions between the diversified spheres of Higher Education, seeking to reduce the marked differences in their relative weight, fostering associated academic goals between the components of national systems, both on the university level and in coordination with non-university tertiary education.
- Develop a comprehensive vision of community service, putting into place sustained extension programs based on the criteria of interaction, reciprocity, and exchange with society, identifying problems, meeting demands, and developing actions that give priority to the themes of poverty, intolerance, violence, the deterioration of environmental conditions, and different forms of social ills.
- Overcome the problems of geographic inequality linked to historical processes of excessive institutional concentration of Higher Education, seeking to reduce the impact of territorial stratification and correcting decentralization policies which, due to lack of rigour in the creation of new institutions and of extensions of existing ones, offer low-quality training in locations with insufficient resources and low academic qualifications.
- Contribute to the effective development of national educational structures from the beginning of basic schooling, contributing to improving the training of teaching staff, specialization in the sciences of education, and in education research.
- Foster the entry of systems into the rationality of the computer revolution and, in a manner coherent with the curriculum take advantage of the opportunity offered by master and mass utilization of the new electronic technologies of information and communication in order to facilitate learning conditions and to develop alternatives complementary to classical in-class teaching formats.
- Establish the option of study plans and programs with new career profiles, the sustained application, along with broadened social access, incorporate more computer-based learning components that aid in the effective use of available time by students who are employed.
- Assure an appropriate normative framework in order to mobilize financing in order to guarantee functioning according to the growing needs of systems – especially their public institutional components, seeking to resolve the endemic contradiction between the ever-increasing social responsibilities of Higher Education and replication of the investment of budgetary resources and state subsidies in their development.
- Give increased emphasis to the value of the international and regional dimensions of university activity, emphasizing the role of cooperation and of interinstitutional and intergovernmental academic collaboration, renewing conceptual focuses and instruments for multilateral relations and international projection of academic communities through programs of cooperation, agreements, and consortia solidly based on the principles of complementarity and mutual benefit.
- Foster cross-border mobility of academic personnel and students, guaranteeing an environment of employment means and stimuli that allow for the retention of national human capital, facilitating return to or permanent connection with the countries of origin of those who have been trained abroad through material support for shared residential models that

make possible their international circulation.

- Foster progress toward a Latin American and Caribbean area of knowledge through the linking of existing academic networks or the possible creation on the continent, and toward the development of country-to-country programs for strengthening science and technology able to support interaction in common projects and better utilization of available resources, thus aiding the processes of economic, political, cultural, and educational integration.
- Prevent the weakening of endogenous academic capacity and the impact of globalization on systems, fostering within countries new approaches and appropriate legislative instruments for controlling the transnational expansion of the trade of Higher Education and the regulation of its indiscriminate penetration, fostered by the increased mobility of capital and of technology.

8. Development of policies of public regulation and citizen control of the quality of education

In any speculation on the future development of Higher Education it is important to identify the presence of particular structural trends that are rooted in changes taking place during the past century and which will be preserved during the coming decades as dynamic variables of education systems:

- Mass Higher Education will develop into greater options within systems. Given the fact that, despite their significant growth, the social coverage of institutions in the region is insufficient, it is foreseeable that in coming years there will be a greater heterogeneity of organizational arrangements aimed at satisfying the growing demand for Higher Education, with new degrees, short courses, and distance programs compatible with employment, continuing education modalities, a greater offering of specializations, and graduate degrees.
- Computer-based education will grow rapidly. Admitting that in the face of the dominance of new technological instruments, university environments will finally lose their centrality as privileged or monopolistic providers of information, it is possible to predict that their roles will become increasingly more essential for the training of people able to select it, order it, categorize it, transform it into knowledge, and use it in an efficient manner in the entire repertory of different skills in the most varied and changing that societies will surely require in order to occupy important positions in both the public and private sectors.

In view of these dynamics, the Higher Education systems of Latin America and the Caribbean currently present a constellation of entities imbued with processes of diversification, differentiation, and segmentation that in general lack the coherence and solidarity demanded by the expansion and democratization of access to knowledge. Overcoming this situation in an alternative development scenario does not necessarily involve postulating a uniform organizational and academic model with undifferentiated ends for the public and private sectors that make up these systems with the peculiarities inherent to their respective missions.

In order to aid in resolving the problems that will characterize the immediate future of

Higher Education in Latin America and the Caribbean, it would seem to be vital to mobilize the democratic force of public regulation and of citizen control in order to lend order, coherence, and efficiency to the systems. This is not to postulate an unviable return to traditional modes of conceiving university systems, or to attempt to reconstitute the social mind set that gave them legitimacy under other historical conditions.

The current problem is that of updating conceptual approaches in correspondence with the imperative of transforming prevailing objective circumstances into reality in order to implement norms and conditions aimed at fostering the convergence of experiences and proposals of individual institutions, establishing harmonious criteria of quality and pertinence based on the conceptualization of Higher Education as a public good essential for having access to democratic knowledge, achieve competitive use of knowledge, attain the goals of comprehensive social development, and contribute to the full construction of citizenship.

In accordance with these broad proposals, based on the belief that Higher Education should be a catalyzing factor in the progress of countries, the continual improvement of assessment and accreditation mechanisms based on public means and resources endowed with full legitimacy can be a key instrument for the design and implementation of shared and proactive policies aimed at achieving a number of benefits linked to the responsibilities of the systems. Among these are:

- Consolidating and developing assessment policies that represent an act of free, objective, and participatory reflection in order to offer societies rigorous judgements on the true condition of university activities, providing a basis for strategies for change that academic communities see as necessary;
- Systematically improving the quality of Higher Education, understood a broad sense as efficiency of educational processes, social pertinence of academic activities, and the search for excellence in the fulfilment of institutional missions;
- Fostering procedures and processes that grant to institutions the reliable administration of their performance in order to assure fulfilment of the ends and objectives upon which they are founded;
- Granting public guarantees for the validity of degrees through the harmonization of demands and through the improvement of the curricular designs corresponding to different academic courses and specialities;
- Establishing norms for the comparability of educational offerings and the stimulus of academic mobility in national and international contexts in which Higher Education has expanded its coverage and diversified the formats of its offerings;
- Discourage, through public regulation, enterprises of a purely commercial nature that lack the necessary means to supervise and assure the quality of educational services.

The redefinition of universities, professional institutes, and technical training centres as public services with a strong social commitment depends on their abilities to process new focuses and meaningful reforms that facilitate much needed assistance to sustainable and equitable development. This concern, although at times mentioned in the rhetorical impulses of many political actors, was not part of the practical priorities of the majority of the principal governmental agendas in the 1990s. However, the broad issue that it represents for the future of societies cannot be resolved exclusively through the non-transferable responsibility of insti-

tutions of Higher Education and the legitimate support of their autonomous statutes.

Particularly for universities, the attainment of lasting solutions able to support and exploit a renewed future scenario involves the construction of more effective environments for dialogue of administrators and academic communities with governments, political systems, and grass root expressions of civil society in order to develop a critical mass of new opinions and ideas that make possible joint actions and lasting consensus in the vital effort to bring together intelligence, equality, and citizenship.

In the final analysis, States are responsible for fostering, validating, and defending judicial frames of reference for the development of Higher Education, guaranteeing efficient regulatory conditions. In this perspective, there is no doubt regarding the importance to be assigned to the reorganization of public policies as support for a sphere of mediation serving as a new scenario for the balanced functioning of systems, although the concrete results of education policies may be far distant from being the rational expression of governmental decisions and wishes.

One should not believe that the objective of vitally necessary public policies should be to resolve problems from above. Such policies can provide legitimate means and resources, proposing a new perspective of the problems. But the dilemmas of systems of Higher Education can only be solved with the irreplaceable participation of actors from within the institutions themselves, through their recognition of the magnitude of their social responsibilities, the production and implementation of renovating strategies, the constructive management of their conflicts, and their participation in proposals developed within the autonomous configurations of science and academy.

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Chapter 6

REGIONAL INTEGRATION AND INTERNATIONALIZATION OF HIGHER EDUCATION IN LATIN AMERICA AND THE CARIBBEAN

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1. Major context elements related to the dynamics of the internationalization of Higher Education

Although the working team has analyzed in depth the context within which Higher Education develops, this chapter presents necessary references for understanding features of the internationalization of Higher Education and that give meaning to the efforts for mutual enhancement, not only between countries, but also of individual education systems.

In recent years, themes related to the importance of knowledge, quality and pertinence, university social responsibility, the ethics of knowledge, and the need for new paradigms for understanding and addressing the complexity of global and local issues in a context filled with uncertainties have increasingly gained relevance on the agenda of Higher Education.

However, in Latin America and the Caribbean, this focus has little novelty to it, and Higher Education has always been seen as a strategic actor for development of the countries of the region as well as a factor for social mobility, although it should be recognized that it now faces new realities and different connotations of these processes.

The challenges of globalization, developments in communication and information technologies, unprecedented progress in science and technology and other fields, together with the Latin American reality of social injustice, poverty, and inequality of opportunities (which is replicated as well in Higher Education), all of these demand of universities another way of conceiving and using scientific knowledge. Universities also need to urgently re-think how they train students in order to assume and overcome their social realities. Nevertheless, in Latin America and the Caribbean, this focus offers little that is new. Higher Education has always been viewed as a strategic actor in the development of the countries in the region and as factors in social mobility. It should be recognized, however, that they now face new realities and connotations different from the processes.

Merely as a reference, the following are some variables that mark new challenges for Higher Education:

- Strong growth in the demand for education, and especially for Higher Education, due principally to the so-called knowledge economy. Using figures from the OECD (Organization for Economic Cooperation and Development), it is estimated that there are nearly 100 million students, of which more than 7 million studies in countries other than those of their origin, and that in 2003 the sector employed 50 million people and received investments of 41 million dollars.
- Besides the increase in coverage in traditional education systems, the technical innovations of recent years in the fields of information technology and communications have led to a strong growth of on-line education that eliminates many of the physical barriers between the educator and the student.
- Moreover, some countries have established, or are establishing, different institutional arrangements such as Higher Education program franchises, institutional and program networks, and a variety of agreements. In addition, both domestic and international companies directly offer non-formal, and even formal education credit programs, thus creating

systems with a mix of State, national private, and foreign private universities.

- In addition, public institutions, which traditionally have functioned using government funds, now seek financing alternatives in face of reductions in public contributions.

After the establishment of the World Trade Organization (WTO) in 1995, specialists point toward the following as proof of progress achieved in terms of trade: the expansion of international trade, growth in a greater number of sectors and themes in regard to this multilateral trade, and the adoption of rules that create more stable conditions for trade transactions.

However, the trade of agricultural products and other primary products that are predominant in the region has not achieved the same development, and many restrictions and distortions continue.

Trade between Latin American and Caribbean countries favours the diversification of exports and the functioning of small and medium-size businesses. Evident as well are the modifications of norms and of political will toward integration between nations of the continent, as well as the emergence of entities that foster, in particular, the establishment of regional blocks such as MERCOSOR, CAN, and other initiatives.

However, in the face of challenges of achieving competitive insertion in the international economy, one can state that such integration processes have been relatively insufficient for the purposes that they pursue.

In terms of international trade, during the first half of the 1990s, trade between Latin American countries was liberalized through agreements reached within the framework of the *Asociación Latinoamericana de Integración* (ALADI). The second half of the 1990s witnessed the growing importance of trade agreements with third countries such as Canada, the United States, Japan, the European Union, China and other Asian countries. In the area of education, Australia emerged as an important ally for various countries in the region. All of these agreements show the clear interest and orientation of Latin American and Caribbean trade policy, which represents a great challenge for the processes of integration in that one, does not see evidence in practice of there being major partners among countries of the region.

In this regard, ECLAC states:

In non-trade areas, but related to trade (services, investments, government purchases, intellectual property), the coverage of intra-regional agreements is definitely deficient compared to extra-regional agreements.

... a very marked asymmetry has been produced between bilateral and multi-lateral agreements within the region and the signed with countries outside the region, especially from the northern hemisphere. Extra-regional agreements involve more demanding commitments, mechanisms that create closer links, and more legal certainty than those signed at the sub-regional level which, however, appear to be less demanding in regard to trade and non-trade disciplines and norms.¹

Regional integration is necessary, useful, and urgent. To the reasons that historically have been offered to foster such integration and that date from many decades ago, are added other

1 ECLAC. *Panorama de la inserción internacional de América Latina y el Caribe 2005-2006*. Santiago de Chile, 2006, page 16

demands resulting from globalization, that has demonstrated the need for strategic international alliances for development. This integration is possible and useful as a strategy and to overcome recognized differences in size and development, both economic and social, of the countries of the region. In order to move toward integration, convergence is important around the priority issues of Latin American countries in the perspective of improving growth and competitiveness, giving priority to regional cooperation within a framework of solidarity.

The internationalization of education is a reality in the face of which universities have sought different strategies that now confront the challenges resulting from free trade agreements within the framework of agreements signed through the WTO that regulate trade relations between nations, the trading of industrial and agricultural goods, and intellectual property rights. In negotiations of the General Agreement on the Trade in Services, education was included among the 12 tradable services, which results in considering education as a marketable good, seen as a million dollar business. This is a view that is contrasted to that of education as a public good, and that continues to be present in the conceptions of the majority of relevant actors. This new concept, besides the tension between conceptions of education as “merchandise” or as a “public good”, brings with it the new dilemma of “negotiations” or “cooperation” in the relations between educational institutions and between countries.

1.1. Education in the list of the General Agreement on the Trade in Services (GATS) and regulated by the World Trade Organization (WTO).

The inclusion of services in world trade negotiations, as we have mentioned, which resulted in the General Agreement of Trade in Services (GATS), includes education in the list² under the argument that governments are to permit private parties to provide this service, and therefore that its treatment as a commercial service is accepted.

In GATS, governments commit themselves to gradually liberalize trade in services, and 32 countries have assumed some form of commitments related to post-secondary education, two of these being Latin American countries. The countries that have demands on Higher Education are Switzerland, the United States, Australia, New Zealand, and Japan.

In order to have an idea of the motivations behind the commercial interest in education, especially Higher Education, Guarga presents the following figures:

One can make a preliminary estimate of the global market of the education sub-sector considering that today there are 100 million degree students in the world, and in 2020 there will be 125 million. Of these, 31.5% are in the private

2 The 12 services included are: **1.- those offered to companies** (including: professional informatics and related services, of research and development, real estate leasing and rental without workers, and a long list of other services); **2.- communications** (including postal and mail services, telecommunications, audio-visual, and others); **3.- construction and related engineering services** (general building construction for civil engineering, installation of prefabricated buildings, finishing work on buildings, and others); **4.- distribution** (includes: commission services, retail commercial, franchise services, and others); **5.- teaching** (includes primary education services, secondary education services, Higher Education services, adult education services, other teaching services); **6.- services related to the environment** (sewage services, waste disposal services, sanitation and similar services, and others); **7.- financial services** (all insurance services and those related to insurance, banking services and other financial services, others); **8.- social and health services** (hospital services, other human health services, social services, others); **9.- tourism services and services related to travel** (hotels and restaurants, travel agency services and the organization of group travel, tour guide services, others); **10.- amusement, cultural and sports services** (show services, news agency services, library services, archives, museums, and other cultural services, sports services and other entertainment services, others); **11.- transportation services** (maritime transport services, inland waterway transport, air transport, space transport, rail transport, highway transport, pipeline transport, auxiliary services in relation to all means of transport, other transportation services); **12.- other services.**

sector (UNESCO Member States Questionnaire) with higher percentages in the developing countries, and lower percentages in Western Europe. Taking an annual minimum cost per student of US\$1,000 (in Western Europe the cost is and estimated US\$11,270 per year) we have today a world market of not less than 31 billion dollars in the private sector.³

The different *modes* of education services offerings present accelerated growth, especially in cross-border supply, thanks to developments in informatics and information and communication technologies. What until recent years were called *new providers* today are more present with increasingly numerous and varied offerings and types of courses. Similarly, the acquisition of already established institutions within countries ratifies the interest of investing in “*the business of Higher Education*”, principally given expectations of increasing demand in Higher Education, with the increased value granted to training, due to the role that knowledge plays in production, in competition, and in other factors.

The GATS negotiations follow their course, and there is strong pressure from the developed countries for an early agreement. However, due to the play of interests that are characteristic of these kinds of agreements, in bilateral or multilateral negotiations there is always the risk of making concessions in some sectors in order to obtain access to others of considerably greater interest, and it is clear that the countries of the region place little strategic value on Higher Education, in spite of declarations of its importance.

It is necessary to emphasize that the sector has not remained passive in the face of this vision of Higher Education. There are numerous pronouncements, declarations, memoranda, and other forms of expression that have been used by different actors in order to express their positions and arguments on the subject. Nevertheless, these have not been embraced by negotiators and governments of the region.

Without attempting to give an exhaustive account of these positions, we hereby present some examples provided by Guarga and Siufi in their respective works. Both authors coincide in taking as a point of departure the World Conference on Higher Education (CMES), convened by UNESCO and held in Paris in 1998. Some of these examples are:

- The documents resulting from deliberations within the framework of GATS, both the “World Declaration on Higher Education in the XX Century: Vision and Action, and the “Framework of Priority Action for Change and Development of Higher Education”
- Joint declaration (September, 2001) of the Association of Universities and Colleges of Canada (AUCC), representing 92 non-profit universities and colleges of Canada; both public and private; the American Council on Education (ACE), representing 1,800 accredited universities and colleges in the United States; the European University Association (EUA), representing 30 National Councils of Rectors and 537 individual universities in Europe; the Council for Higher Education Accreditation (CHEA), representing 3,000 accredited degree granting universities and colleges, and 60 recognized accrediting agencies of institutions and programs in the United States.
- The “Letter of Porto Alegre”⁴, signed within the framework of the III Summit Meeting of University Rectors of Ibero-American public universities, held in Porto Alegre in April, 2002.
- The Declaration of Bogotá of the CXI National Council of Rectors of the Colombian As-

³ Guarga, Rafael. “La educación superior y los acuerdos de la O in MC” Parlatino, 24/10/06, Montevideo. pág. 2

⁴ Signed at the III Ibero-American Summit of Public University Rectors

sociation of Universities (ASCUN) in 2004.

- The Ministers of Education of MERCOSUR⁵ emphasized the definition of education as a social good and public responsibility, the internationalization and international cooperation of which should be based on academic and cultural values.

This, then, is the scenario within which the convergence of Higher Education in the region should be considered in order to contribute to integration processes in Latin America and the Caribbean as a block, a proposal that maintains the interest of different Latin American and Caribbean actors, in spite of the tensions always present between countries. In this regard, María Gabriela Siufi wrote:

Latin America enters the XXI century under circumstances in which uncertainty predominates over certainty, in a scenario in which the world system generates contradictory forces, tensions, frictions, and dynamics of massification and fractures of different variables and dimensions.

As a region, we have a proliferation of democratic governments with good understanding, that share the belief of a much-needed approximation and strengthening among Latin American countries. But we still have not been able to truly transform this idea into concomitant public policies based on solidarity. We know that something has changed, that we have left behind the models of other decades. But there still is no certainty regarding what we are constructing, and where we are going.⁶

In spite of the various efforts begun throughout the histories of our countries, Higher Education in our region has not achieved the kind of convergence achieved in other regions. However, the experiences of Central America and of the MERCOSUR countries are the lenses through which one can foresee the integration of Higher Education of the continent in order to take advantage of the strengths and overcome the multiplicity of weaknesses in spite of the heterogeneity of Higher Education in our countries, and the problems of each of them. Undoubtedly, the processes of internationalization offer a valuable strategy, and perhaps a driving force, for creating a regional area of Higher Education. There lies, the importance of public and institutional policies to be promoted and used at its best for the interest of international organisms.⁷

For this reason we see the growing number of agreements for academic exchange and for developing joint and/double degree programs. Missions abroad are organized in the search for cooperation programs and alliances with foreign universities. In all of this, and other actions not included in this brief description, the internationalization of Higher Education is strengthened. However, as with all great tasks, there are issues to be resolved, such as the reciprocal trust necessary for these agreements, the bureaucratic barriers for the recognition of degrees, and the granting of visas, among other themes.

5 XXVI Meeting of Ministers of Education of the MERCOSUR countries, Bolivia, and Chile, June, 2004, Buenos Aires, Argentina

6 Siufi, Gabriela, 2007 "Cooperación internacional e internacionalización de la educación superior".

7 Didou, Sylvie, (2007).

2. Some conceptual referents for approaching the theme

The term, *international cooperation* has been understood in various ways throughout history, but one can define it as the relation between countries that seeks mutual benefit for achieving the optimum development of their citizens, and through cooperation seeking to overcome the difficulties that each nation has individually in obtaining these benefits. This term, which in its beginnings had an assistance-dependent connotation, underwent changes in recent decades, and today is seen more as a co-responsible act, or one of “associates”.

International cooperation for development uses the benefits of cooperation in order to solve specific problems, foster well-being, and strengthening national capacities. It is an instrument that seeks to establish more just relations between peoples and to place persons at the centre of all efforts, so that each human being can make the best use of his or her potential. This activity focuses on access to education, health conditions, the satisfaction of basic needs, and on increasing citizen participation. It provides a change in mentality and attitude in our societies, leading to the paradigm of *solidarity-based cooperation*. Therefore, dissemination, education for development, and awareness building are central tasks of cooperation for development. This is a scenario in which universities have begun to participate actively in recent and years, in collaboration with local governments, NGOs, and institutions of civil society⁸.

As can be seen, the assertions regarding cooperation are in contrast to *globalization*, defined as the phenomenon that grows at the expense of diversity and autonomy of nation-states, of cultural identity, and above all of human needs. It has economic, social, geographic, and political impacts that undeniably affect education. Globalization carries with it the idea of a process of creating a single world on the planetary scale, and in which individual efficacy and market competition are the engines of progress and development, leaving behind the less competitive. The concept is guided by the search for interests of financial or political benefit devoid of self-criticism regarding current economic agendas and the distribution of wealth in our societies, thus strengthening the inequalities that exclude the majority of people and leave them without opportunities.

International university cooperation, as a specific area of international cooperation, refers to the set of activities carried out between university institutions that, through multiple modalities, involve association and collaboration in areas of institutional policy and management – training, research, extension, and links for mutual institutional strengthening and projection. It involves improving the quality of teaching, the increase and transfer of scientific and technological knowledge, and contributions to cooperation for development⁹.

International university cooperation makes possible greater interaction between institutions and their academic communities, taking better advantage of each and being able to reinforce individual strengths, establishing new forms of integration and cooperation while fostering working in networks.

Internationalization as seen as one of way that Higher Education can react to the possibilities and challenges of globalization. It is both an objective and a process, and allows institutions of Higher Education to achieve greater international presence and visibility, taking

8 Still, it should be kept in mind that alter the so-called *Paris Declaration on the Efficacy of Development Aid*, (2005) it would seem that the new world trend points to again placing Status as the major receivers of internacional aid, decreasing the participation of other actors.

9 Sebastián, Jesús. (2004). *Cooperación e Internacionalización de las Universidades*. Editorial Biblos.

advantage of the benefits existing abroad¹⁰. It also involves, as Jane Knight states, “the process of integrating an international, intercultural and/or global dimension into the goals, functions (teaching/learning, research, services) and delivery of Higher Education”.¹¹

Beneitone notes that the internationalization of Higher Education includes processes of mobility of researchers, professors, administrators, and students that generally mark the point of departure for taking the path to internationalization. Therefore, it is the activity that predominates in processes in the region. It also includes the establishment of networks of interpersonal, inter-departmental, inter-faculty, and institutional relations, both bi-lateral and multi-lateral, that contributes to processes of internationalization. In addition, it includes the internationalization of curricula as one of the most complex tasks of these processes, given the institutional implications that they have. Beneitone notes, therefore, that internationalization:

- “is a combination of processes the effect of which results in improvement in the international dimension of the university educational experience
- is an integrating process, and not merely a group of isolated activities
- is a conscious process that demands clear policies for its successful development.”¹²

And finally, ***solidarity based internationalization*** may be understood as a set of cooperative activities with institutions of other countries for mutual benefit for increasing the possibilities of expanding knowledge and development in other cultures; possibilities of agreements for the establishment of joint programs of exchange and mobility that increase the feeling of pertinence to the region and enrich the training of students, teachers, and researchers within the framework of Latin American and Caribbean integration.

This means that the international dimension that universities seek to incorporate into their mission tasks should be integrated into the strategic development proposals of institutions ad of Latin American and Caribbean society. If this is not done, entering into the world of international exchange without alignment with institutional proposals and without considering the needs of society in a long-range perspective means using personal resources and efforts that will have little impact, and the international dimension will be seen as an additional and marginal task, as well as a financial burden.

Thus, solidarity-based internationalization is an institution-to-institution activity that can influence public and institutional policies, teacher training, undergraduate, graduate, and post-graduate offerings and continued education, activities of social projection, links with society or extension, and, very particularly, the role that universities play in cooperation for development.

In regard to the above comments, is necessary to note that the accent of internationalization in our universities is toward the search for alliances with universities in developed countries, especially in the United States, the European Union, and Australia. Moreover, student and teacher mobility shows a marked preference for these universities. This should not be

10 Consejo de Universidades Públicas e Instituciones Afines (ANUIES). Cooperación, movilidad estudiantil e intercambio académico [on line]. XIV Ordinary meeting. Universidad de Colima. December 3 – 4, 1999. Available at: http://www.anui.es.mx/principal/servicios/publicaciones/documentos_estrategicos/coop/62.html

11 Knight, J. (2002). *Trade in Higher Education Service: The implications of GATS*. The Observatory of Borderless Higher Education. London.

12 Beneitone, P. (2008). *La internacionalización del currículum, una estrategia para la competitividad de la universidad*.

abandoned for an exclusive focus on neighbouring countries. It is perhaps the need to achieve a just balance that makes it possible to bring to the continent the attainments achieved by developed countries, while establishing cooperative ties with Latin American and Caribbean neighbours.

3. The state of international cooperation and internationalization in Higher Education in Latin America and the Caribbean

The relations of scientists and teachers of a university in the region with their international peers have historically been important and have always had a strong impact on the development of scientific and academic activities. However, in the international dimension, Higher Education now has acquired greater relevance compared to its role in previous decades. This is due, among other reasons, to changes in a labour market that demands different skills and knowledge, as well as a more profound understanding of the languages, cultures, and business methods of other regions of the world.

Until the 1960s and 1970s, cooperation between countries was based on cooperative cultural exchange agreements. Later, international aid programs and “cooperation for development” were emphasized in some areas of science and technology, although universities did not play a very active role in the definition of content of actions, or in their execution. The internationalization of Higher Education grew in the 1980s, and more rapidly still in the 1990s.

As an objective, internationalization allows universities to gain more international visibility and to take advantage of the benefits of a global presence.

Changes in the economic, social, cultural, and political dynamics of the world context, and of course those of Latin America and the Caribbean, as is natural and has been expressed in this document, have effects on the Higher Education of our countries.

University international cooperation has focused on strengthening quality and as a support strategy for the growing internationalization of academic activities, without leaving aside the concern for pertinence of the institutions that, in general, are closely associated with the concept of quality in Latin America and the Caribbean. Thus, international cooperation, which traditionally has been viewed as a source of external financing, comes to be seen as an instrument for the internationalization of Higher Education and to be the object of public and institutional policy, without regional priorities being clearly defined.

The trend is to increasingly see international cooperation and internationalization of Higher Education as a means toward institutional development and to complement the capacities of universities, making possible the realization of joint activities and integration for mutual benefit. In this sense, the following text of Beneitone summarizes this analysis:

Internationalization is the transformational response of the academic world to globalization. Universities critically observe globalization, make use of its positive aspects, re-codifying the values and trends that make the world system of human development effective for all. This transcends educational and social merchandizing, aggressive competition, and international relations in favour of the construction of the knowledge society, bolstered by institution-to-institution cooperation with solidarity, and providing pertinence, quality, equity, and accessibility.¹³

¹³ *Op. Cit.*

3.1. Areas of governmental integration and its importance for international cooperation

Every country acts within the international context using different capacities in order to take advantage of the opportunities offered by globalization. There is a clear tendency to do so through blocks of nations identified by common interests. Moreover, each country has a relative ability to participate in these cooperative blocks.

An example of international cooperation within Higher Education is the creation of the ALCUE (Latin America and Caribbean – European Union) area,¹⁴ created in November, 2000, with the presence of 48 ministers of education who signed the *Declaration of Paris*, and thus creating the largest university area in the world: the ALCUE Higher Education Common Area. Although the inclusion of the objectives of this area has not been reflected in the public policies of the majority of countries in the region, (except perhaps for those that comprise the *Follow-up Committee*)¹⁵, its strategic character should be recognized as a platform for the construction of cooperative policies between blocks.

Motivated by this initiative, two projects have been shaped that have had high impact in terms of the cooperative efforts for academics and managers of Higher Education to arrive at meeting points for understanding between and harmonization of systems. These were the Latin America Alpha Tuning Project¹⁶ and Project 6x4¹⁷.

The *Ibero-American Summits of Chiefs of State and of Government* are events that foster integration and cooperation. They have played a key role in the formulation of policy guidelines and specific programs for member countries, with an important role as well for organizations such as the Organization of Ibero-American States. Their last summit, held in Montevideo in 2006, demonstrated the political will of governments to move toward more effective and far-reaching Ibero-American cooperation in regard to Higher Education, and also demonstrated the difficulties involved establishing these initiatives in a short time.

On that occasion, it was agreed to move forward in the progressive establishment of an *Ibero-American Area of Knowledge* (EIC in its Spanish acronym) as a venue for fostering solidarity-based cooperation, continuous improvement, the assurance of quality and pertinence of Higher Education, seeing research and innovation as essential for sustainable development and conservation of the biodiversity of the region, and for strengthening the efforts and actions that our governments and Higher Education networks are developing in order to establish multi-lateral areas.

As a first measure for putting the EIC in place, a Summit Cooperation Program was created in the area of student academic mobility that is based on basic criteria of pertinence, quality, and multi-lateral action. The intention of the Latin American countries was for this program to concentrate on undergraduates, but it appears that it will be aimed at graduate students.

14 Available at: <http://www.alcuc.net/uealc/portal/main/Home.do?lng=es>

15 In order to carry out the strategies contained in the Declaration of Paris, a Follow-up Committee was created made up of France and Spain for the European Union, Mexico and Brazil for Latin America, and St. Kitts and Nevis for the Caribbean. In 2005, at the II Meeting of Ministers of Education of ALCUE in Mexico, the following countries were added to the comité: Colombia and Nicaragua for Latin America, Poland and Portugal for the European Union, and Jamaica for the Caribbean.

16 The Alfa Tuning Latin America Project brought together 19 Latin American countries represented by academics of 190 universities in 12 areas of knowledge. The purpose was to “fine-tune the education structures of Latin America”, especially in regard to the provision of qualifications and of abilities, knowledge, and levels of understanding of graduates, identify and exchange information on competencies, and improve collaboration between institutions of Higher Education for the improvement of quality, effectiveness, and transparency.

17 52 universities from 10 European and Latin American countries participated in the 6x4 Project, which worked on six professions in four areas in order to propose conditions for providing greater compatibility and convergence between Higher Education systems in Latin America and the Caribbean and the comparison with and approximation to those of the European Union.

In regard to the geopolitics of Latin American integration, we should note that all countries, in one way or the other, are parts of *sub-regional blocks* that seek to create joint alternatives for economic, political, productive, financial, administrative, environmental, and social plans.

Among the major sub-regional blocks are *TLCAN/NAFTA* (Canada, the United States, and Mexico), the *Central American Common Market* (Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica), the *Andean Community* (Colombia, Ecuador, Peru, Bolivia), the *Common Market of the South* (MERCOSUR), the *Caribbean Community* (CARICOM), the *Bolivarian Alternative for Latin America and the Caribbean -ALBA-* (Nicaragua, Bolivia, Cuba, Ecuador, and Venezuela), the *Union of South American Nations*, and the *Ibero-American Community of Nations*.

Many countries are part of more than one block, and this sometimes produces conflict, since they must choose between belonging to one or the other. But above all, this situation of multiple blocks produces a waste of energy that takes the force away from a global effort toward more complete Latin American integration.

Moreover, some blocks such as the MERCOSUR and the Andrés Bello Agreement (CAB) include education as an essential component. Both processes have led to the renewal of national agendas, the fostering of programs at the regional level, and reformulation of the priorities of education. In regard to the development of mobility and accreditation for international university cooperation, the MEXA¹⁸ and the MARCA¹⁹ are examples of important experiences within MERCOSUR Educativo.

All of these areas of regional integration are relevant when one considers that in the negotiations within the framework of the WTO, “the only case in which it is permitted to go outside most favoured nation treatment in the framework of the GATS is that of countries that are members of regional trade agreements”²⁰

Although the work carried out in each of these blocks provides learning and benefits for the member countries, in most of them there are still difficulties in consolidating the integration process. Consequently, one can say that the pending challenges for true cooperation between countries depend on:

- learning to truly work as a block, struggling to achieve the benefits of cooperation and solidarity,
- fostering mechanisms that deal with the asymmetrical relation between small and large partners. Differences in the sizes of Latin American and Caribbean countries and their Higher Education systems should be a factor to be taken into account,
- the resolution of different kinds of bureaucratic bottlenecks (the granting of visas, elimination of customs duties, up-dating of labour statutes, granting of professional credentials, recognition of studies, etc.),
- and fundamentally, the creation of an authentic sentiment of Latin American and Caribbean citizenship.

18 The objective of the experimental undergraduate course accreditation mechanism of MERCOSUR (MEXA) was the validation of the qualifications of university degrees between countries. This had a strictly academic character, without conferring the right to exercise a profession. MERCOSUR accreditation was voluntary and only applied to courses official recognized in their countries and which had graduates. To date, MEXA has accredited a total of 60 courses in six participating countries: 19 in agronomy, 29 in engineering, and 12 in medicine.

19 Based on developments in regard to accreditation, it was decided to begin with the MARCA, the Regional Academic Mobility Program, for courses accredited by the experimental undergraduate course accreditation mechanism in MERCOSUR. The objective is to strengthen the accredited courses, foster inter-institutional cooperation, and fulfil the central objective of regional integration.

20 [20] WTO Secretariat, 1999. Introduction to the General Agreement on Trade in Services (GATS).

3.2. Agendas of international university cooperation

There are agreement frameworks that have established cooperative action plans and proposals for the coming years in Latin America:

The World Declaration on Higher Education in the XXI Century: Vision and Action and the *Priority Action Framework for the Change and Development of Higher Education* approved by almost all countries in the world. In addition, as a result of the conference, there are activities initiated by UNESCO, and especially in the region by IESALC-UNESCO.

The Common Higher Education Area ALCUE/UEALC, ratified by summits of chiefs of state and meetings of ministers of education. With a time horizon of 2015 the following development strategies are presented: mutual recognition and effective comparability for the recognition of studies, qualifications, and skills; the mobility of students and teachers, working in networks and exchange between institutions for scientific, technological, and cultural progress; visibility of the process in the area, and the clear definition of sources of financing for program development.

With a similar orientation, the *XVI Ibero-American Summit of Chiefs of State and of Government* has reaffirmed the commitment to “make progress in the creation of an Ibero-American Area of Knowledge to foster the transformation of Higher Education based on research, development, and innovation”. The latest Ibero-American Education Conference, held in Chile in July, 2007, witnessed the signing of the *Declaration of Valparaiso*, in which the ministers reiterated the importance of continuing to move forward in creating an Ibero-American Area of Knowledge, continuing efforts on the Ibero-American General Secretariat (SEGIB), the OEI and the Ibero-American University Council (CUIB), to that established by the road map designed by Higher Education officials of Ibero-American countries, with special attention to creating an academic mobility program and on reformulating the Ibero-American Program of Science and Technology for Development (CYTED).

In regard to the establishment of state policies, *Cultural and Educational Cooperation Programs* are framework agreements between countries that include all areas of education and culture. They are generated through proposals presented by governments in order to formalize and strengthen the activities of bilateral cooperation²¹. They also establish the recognition of qualifications and diplomas which, up to his secondary level, is practically automatic among Latin American countries.

Finally, the multiplicity of inter-institutional agreements signed within the framework of the autonomy of each Latin American university, define cooperative actions and programs that range from participation in joint projects, student, teacher, and researcher exchange, to agreements on subject matter and credits.

As can be seen, many of the activities and proposals carried out by different actors are in similar directions, in the sense of fostering international university cooperation, and in how these are carried out.

However, various studies on international cooperation and the internationalization of Higher Education in Latin American countries indicate that activities, projects, and programs

21 These programs are carried out with the framework of the Education Agreements and Cooperation, and are approved within the contexts of meetings of the Mixed Commission between countries that are held periodically. Education program proposals include: teacher, student, and researcher exchange; access to documents and structures of the education systems of countries; grants for students, teachers, and researchers in order to carry out undergraduate and graduate studies in the other country, cultural dissemination, artistic exchange, fairs and festivals, among many others.

are not well-inserted into the regular implementation of policies and practices. There has been more progress in making declarations than in carrying out concrete actions. There are also serious difficulties in assessing the results of functioning cooperative programs, due to the lack of impact studies and reports on these processes.

3.3. Mobility:

3.3.1. *Recognition of studies and co validation of qualifications for mobility in Latin America and the Caribbean (LA&C)*

The recognition of qualifications and studies is one of the principal instruments that contributes to fostering the mobility of persons between countries of LA&C, and that can help in country-to-country collaboration on the continent. This is vital for the internationalization of regional Higher Education, and a measure that can contribute to creating the ***Latin American Area of Higher Education***. Moreover, it can also make more attractive the institutions of the region among the nationals of each country for a first Latin American exchange compared to other options that cannot be entirely excluded, but that are in the end more costly than exchange among countries of the region.

The recognition of degrees and qualifications in Latin America

In Latin America and the Caribbean, the theme of recognition of diplomas gradually gained relevance in political and academic discourse connected to mobility, institutional diversification, and the accreditation of quality. Its growing visibility was due both to the strategies of Latin American and Ibero-American organizations for educational integration, and programs for the internationalization of Higher Education fostered by national or regional university associations and networks and the actions of universities themselves.

Many Latin American and Ibero-American educational integration entities included the improvement of processes of the transfer and recognition of credits and degrees in their action priorities. For example, the Final Declaration of the Second Meeting of Ministers of the European Union – Latin America and the Caribbean Common Area, held in Mexico City on April 14-15, 2005, included among its strategies the establishment of this area within the 2015 proposals regarding the definition of joint qualifications, the use of accreditations to facilitate the processes of recognition, and the use of experiences regarding the joint definition of common credits²². For their part, institutional networks such as the ***Network of Macro Universities of Latin America*** or the ***Association of Universities of the Group of Montevideo*** have designed student exchange programs that contain the recognition of periods of study taken outside. Fi-

22 “7.4. Encourage the comparability of Higher Education, particularly in thematic areas in which previous work related to titles already exists 7.5. Foster the establishment and appropriate development of coordinated programs for the mobility of students, researchers, teachers, technical, and managerial personnel through grants and aid that encourage this mobility under conditions of equity and equality of opportunities, and within the framework of joint actions that transcend bilateral relations, and that contemplate, in its case, the recognition of studies 7.6. Foster the establishment and appropriate management of programs that lead to the creation of cooperation and exchange mechanisms and networks between institutions of Higher Education and their academic personnel, and particularly to the development of joint studies and qualifications 7.7 Foster the shared use of information and communication technologies in the programs and activities of the Common Space 7.8 Foster the creation of Higher Education assessment and quality assurance mechanisms within the countries where they do not exist, based on comparable criteria and on codes of good practice 7.9 Foster mutual knowledge of national education assessment and accreditation systems, and encourage their recognition between different countries.” (UEALC, Declaration of Mexico, April, 2005).

nally, associations such as the *National Association of Rectors of Colombia*²³ stated that lack of clarity in the recognition of qualifications and degrees had to be solved if the circulation of students was to be consolidated.

Finally, much of the regional thought on the recognition of credits and degrees is linked to analyses of student mobility and the circulation of competencies. According to sources, between 130,000 and 146,000 Latin American students are enrolled abroad²⁴ while professional migration involves 1,606,674 persons (Dumont and Lemaître, 2005). It is to be expected that both of these contingents will grow in the medium term, due to strategies dealing with the attractiveness of highly skilled labour, and fostered by developed countries that have a deficit of human skills in areas that are strategic for their development, and the growing differentials of salary and of working conditions between the region and developed countries.

Another factor that explains why these issues are gaining in relevance is the arrival of transnational providers in the region – causing new situations in areas that range from the accreditation of institutions to the re-validation of diplomas and qualifications (Didou and Jokivirta, 2007; UNESCO, 2004²⁵). Although this does not mean that these questions have the same centrality in Latin America and the Caribbean as at the central levels of UNESCO, the issue is mentioned with growing frequency in articles and books that treat the internationalization of Higher Education (Acosta de Valencia, 2004; Pugliese and Siufi, 2005), the expansion of the offer of joint qualifications, and the integration of common extra-regional education areas (such as ALCUE).

In this context, one of the objects that cause great concern in Latin America is assurance of the quality of training, certified by diplomas and subject recognition. This concern is even greater given the lack in the region of any specialized network such as NARIC/ENIC or MER-IC, which serves to create mutual trust based on reliable information regarding the contents of plans and programs and the profile of qualifications. This explains why that in the region it is generally thought that the most appropriate entities for guaranteeing public credibility of qualifications are national or regional accreditation agencies.

The Regional Agreement on the Recognition of Higher Education Studies, Qualifications and Diplomas in Latin America and the Caribbean promoted by UNESCO

For various decades, UNESCO has fostered regional agreements for the recognition of Higher Education studies, qualifications, and diplomas. In Latin America and the Caribbean, an agreement was signed by 18 countries on July 19, 1974 in Mexico City. Of these countries, 13 are from the region and another five are from other geographic areas.

The signatory countries from LA&C are: Panama, Mexico, Chile, Venezuela, Colombia,

23 See in Colombia, for example, the document of the National Council of Rectors, "Toward the internationalization of universities with its own meaning", published October 22, 2003, pp.24 and subsequent.

24 "The data published regularly by UNESCO and by the OECD (particularly the annual reports Education at a Glance and the UNESCO Statistical Reports) regarding student mobility indicate growing increases in their numbers during the last 15 years, including in Latin America and the Caribbean. Thus, the OECD records 146,000 students of the region registered in an institution located in its zone, and UNESCO reports 130,000 as mobile in the world Available at : (<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>). en 2003-2004" (Didou, 2007).

25 The discussion centres on the issue of guaranteeing quality and the need to provide protection to the consumer in the FACE of "diploma mills". The value of qualifications or diplomas granted and the acceptance by the labour market raises additional concerns by students, employers, the public in general, and the teaching community itself. The major policy problem continues to be the struggle to discover how for-profit providers and traditional cross-border providers of Higher Education can contribute to the development program of a developing country and not weaken it (UNESCO, 2004:9).

Cuba, El Salvador, Ecuador, Brazil, Surinam, Nicaragua, Peru, and Bolivia. Other signatories are: The Netherlands, Holland, The Vatican, Slovenia, the Republic of Macedonia, and Serbia and Montenegro. Argentina did not adhere to the agreement, while Brazil and Chile signed it, but then later renounced it. Thus, the number of participating countries is eleven. Thus, this instrument, that could help foster the integration and internationalization of Higher Education in the region, does not apply to 33 countries.

The proposals of the agreement are:

- “Allow better utilization of training facilities in the region,
- ensure greater mobility of teachers, students, researchers, and professionals within the region,
- reduce the difficulties encountered by persons that have received training abroad when they return to their countries of origin,
- foster greater and more effective utilization of the human resources of the region in order to assure full employment and avoid the departure of talents attracted by highly -developed countries”.²⁶

In this guarantee UNESCO presented an initiative that was a precursor to current university areas and offered an important platform for the mobility of professionals and students. It looked toward a gradual harmonization of education systems of the region, while overcoming the complications of bi-lateral agreements or of small groups of countries attempting to resolve the complex situation of the recognition of qualifications and the recognition of partial studies.

However, this agreement did not specify requirements for recognition. Nor did it discriminate between recognition for academic purposes and licensing for professional activity - something that in time became a problem for its application. Regarding the latter, more precise was the Andrés Bello educational, scientific, technological, and cultural agreement, the signatories of which were: Bolivia, Chile, Colombia, Cuba, Ecuador, Spain, Mexico, Panama, Paraguay, Peru, and Venezuela. A modification of November, 1990 stated in its Article 5 that:

The member states shall recognize the diplomas, degrees, and qualifications that recognize academic and professional studies granted by institutions of Higher Education of each of them for the sole effects of entry to graduate studies (specialization, master's, and doctorates). The latter to not guarantee the right to professional exercise in the country in which the studies are carried out.²⁷

UNESCO has held various meetings to analyse the situation. In 1992, in a joint meeting, the five regional committees and the intergovernmental committee for recognition of diplomas analyzed the appropriateness of approving a universal agreement on the recognition of Higher Education studies and diplomas. Due to a lack of consensus, it was decided to continue the regional agreements, and a less binding normative instrument was produced: the International Recommendation on Recognition of Studies, Qualifications, and Diplomas of Higher Education, approved during the 27th meeting of the UNESCO General Conference (November, 1993) (UNESCO, 2004:25).

Subsequently, during the 10th Ordinary Meeting of the Intergovernmental Committee,

²⁶ Available at: (http://portal.unesco.org/es/...&URL_DO=DO_TOPIC&URL_SECTION=201.html).

²⁷ Available at: <http://www.convenioandresbello.org>

held in Paris on September 29-30, 1998, the contracting countries presented evaluations of the agreement's operation. At that time, the Latin America and Caribbean report presented the barriers to its application. These are summarized below:

- Lack of information on current standards and procedures for recognizing studies and qualifications, derived from the modifications of legislation on the accreditation of courses during the 1990s.
- Diversity of norms in regard to recognition, and the lack of common academic criteria and for authorization of the exercise of professional activities.
- Lack of comparable, reliable, and up-to-date data on recognition mechanisms.
- Lack of tables of equivalencies to support norm and criteria-based comparison of qualifications and credits.
- Growing diversification of institutions in the region, which made much more difficult comparability and legibility of qualifications
- Lack of reliable accreditation mechanisms in some countries.

Among the problems for the functioning of the structure for implementation the agreement were:

- Scant participation of institutions of Higher Education in the committee.
- Inexistence of coordination mechanisms between the committee, institutions of Higher Education, and government authorities.

For their part, delegates from some countries²⁸ considered as serious obstacles:

- Insufficient dissemination of the agreement, its norms, and fulfilment conditions.
- Lack of economic, technical, and administrative resources to operate it.
- Non-reciprocity in the recognition of qualifications between the countries of the region and the industrialized countries, and more precisely, unequal treatment granted to professionals as well as the tendency to recognize the academic value, more than the professional value of a title.
- Low volume of mutual information on professional exercise, professional association, accreditation, and education systems.

Given this situation, the intergovernmental committee formulated a series of actions designed to improve the operation of the regional agreement:

- Increase the exchange of information: it proposed generalizing the questionnaire developed by Mexico in order to collect standardized data, create a network of national centres of recognition, accreditation, and assessment in order to share and disseminate experiences, design web pages of national recognition centres and of the committee in order to communicate up-dated indicators, collect information on standards applied in each country for regulating the granting of academic degrees and professional practices in distance

28 Besides that of the Secretary, the following countries presented reports: Colombia, Cuba, Ecuador, Mexico, Peru, Surinam, Venezuela, Argentina, and Costa Rica. Participating as observers were Chile, Jamaica, the Bahamas, Dominican Republic, and representatives of university associations: the Organización Universitaria Interamericana and Asociación de Universidades Grupo Montevideo, as well as IESALC.

Available at: ([http://www.iesalc.unesco.org/ve/sid/Listapart\(1\).pdf](http://www.iesalc.unesco.org/ve/sid/Listapart(1).pdf))

education. It also suggested requesting IESALC-UNESCO to coordinate a regional data base on legal aspects and provide statistical information related to recognition processes for academic and professional purposes.

- Generalize assessment and accreditation systems: it stated that it was necessary to strengthen them and to incorporate their inputs into the recognition process. It requested that IESALC-UNESCO assume responsibility for the production of comparative studies on assessment and accreditation experiences and accreditation to identify similarities and differences as well as a feasibility study on the preparation of equivalency tables. It suggested that a comparative study be carried out, through the secretariat, on existing standards and practices related to recognition for academic purposes. Finally, it called upon the delegations to attend a meeting organized by UNESCO in 1998 on the dissemination of agreements.
- Standardize terminology: based on the publication of a glossary by the secretariat, for distribution to entities responsible for recognition. It suggested fostering the use of a widely-accepted lexicon.
- Produce a comparative study on regime and treatment differences in terms of official recognition of institutions, plans and programs of study, degrees, certificates, and diplomas under the coordination of the secretariat and with the collaboration of responsible national agencies.
- Adopt measures for making curricular structures and contents transparent: it called upon adoption of the diploma supplement committee presented by UNESCO in 1994 and encouraged its application by institutions of Higher Education in the region.
- Increase joint activities with UNESCO Chairs and the UNITWIN network in order to carry out initiatives in Higher Education.
- Encourage countries not signatories to the Hague Convention²⁹ to do so in order to facilitate their legal procedures in the area of the recognition of studies.

Almost ten years after these recommendations, the situation is the following:

- In regard to the generation and collection of comparative information on accreditation and recognition systems, IESALC-UNESCO coordinated the production of national reports and, in its case, a regional report on accreditation on the one hand³⁰ and requirements of certification of qualifications, on the other³¹. However, the design and propagation of a statistical data base, the responsibility of which had been assigned, is a task to be fulfilled. Also pending: the integration of a comparative study about regimen differences and treat-

29 The Latin American and Caribbean countries that have signed the Hague Convention of October 5, 1961 are Antigua, Argentina, Bahamas, Barbados, Belize, El Salvador, Mexico, Panama, St. Kitts and Neves, Surinam, and Venezuela (Didou, 2007).

30 The authors of studies on accreditation of Higher Education in Latin America are the following: for Argentina, Norberto Fernández Lamarra; Bolivia, Ramón Daza Rivero; Brazil, María Susana Arroza Soares; Chile, María José Lemaitre; Colombia, Alberto Roa Varelo; Cuba, Ministerio de Educación Superior; Ecuador, Jaime Rojas Pazmiño; Mexico, Hugo Aréchiga; Paraguay, Haydée Jiménez de Peña; Peru, Hugo. L Nava; Dominican Republic, Roberto Reyna Tejada; Uruguay, Rodolfo Lémex, and Venezuela, César Villaroel. Various regional seminars on the theme have been organized by IESALC in Argentina, Colombia, Guatemala, Peru, and the Dominican Republic. Available at: (<http://www.iesalc.unesco.org.ve/>)

31 The authors of studies on recognition of qualifications and degrees at the nacional and internacional scales are: in Argentina, Juan Carlos Pugliese; in Bolivia, Ramón Daza and Álvaro Padilla, in Brazil, Christiane Martins Romeo; in Chile, María José Lemaitre; in Colombia, Jorge Hernán Cárdenas et al; in Cuba, Ángel Romero Fernández et al.; in Guatemala, Juan Alberto Martínez; in Guyana, Una Paul; in Honduras, Lea Azucena Cruz; in Mexico, Salvador Malo; in Nicaragua, Elmer Cisneros; in Panama, Vielka de Escobar; in Paraguay, Carmen Quintana de Horak; in Peru, Ministerio de Educación; Dominican Republic, Manuel Herrasme; in Uruguay Carlos Romero, and in Venezuela, César Villaroel. Available at: (<http://www.iesalc.unesco.org.ve/>)

ment of material regarding official certification requested by the secretariat, as well as more frequent dissemination of agreements reached in UNESCO through regional committees.

- In regard to normalization of nomenclature, IESALC-UNESCO developed a glossary of Higher Education terms which may be consulted on-line (<http://www.iesalc.unesco.org.ve/general/glosario.asp>). Thus, there has been progress in the production of standardized definitions of concepts such as recognition³². But this task has not changed nationally-rooted habits in terms of the names given to processes. Since the end of 2006, IESALC-UNESCO has fostered the creation of another glossary within the Map of Higher Education project (http://www.iesalc.unesco.org.ve/noticias/Mapa_ALC.htm). In spite of these efforts for standardized use of terminology, common use of terms has not occurred.
- In terms of guaranteeing quality, accreditation mechanisms have multiplied in the region, but as thematic studies have shown, they do not always serve as referents to facilitate and rationalize the process of recognition of diplomas awarded abroad. Their interests have been more linked to assuring the quality of diplomas of the institutions in their countries. They contribute little to reducing the high degree of heterogeneity between recognition mechanisms which in Latin America and the Caribbean continue to be very different from each other in terms of the entities responsible, requirements, decision-making, and response periods. Their diversity is a factor that discourages mobility and causes confusion and uncertainty among students.
- For its part, the use of documents such as diploma supplements has not taken place in regard to the agreement. Documents of this type have been developed in pilot projects or as sub-regional and inter-regional initiatives on the harmonization of Higher Education systems, and agreement on criteria for the recognition of credits and degrees for specific courses. Among these are the 6x4 projects (Fortes, 2007)³³ and Tuning – Latin America (Cetina, 2007; González et al., 2004). But beyond these initiatives, that are limited in time and regional scale, the qualifications acquired and the contents of diplomas continue to lack legibility and transparency.
- Nor are the modalities of joint work among UNESCO Chairs, UNITWIN networks, or levels clearly established as based on the mutual interest of the counterparts involved.

A few weeks after the September, 1998 meeting, UNESCO reiterated the importance of the agreements. The “World Declaration on Higher Education for the XXI Century: Vision and Action” was promulgated by the World Conference on Higher Education on October 9, 1998 in Paris. In its article 15, the signatories agreed to “*Share knowledge and know-how across borders and continents*”. Paragraph C declares:

Regional and international normative instruments for the recognition of studies

32 The definition of the term “recognition” proposed by this glossary is the following: “Definition: a process through which a university institution, applying its own regulations, international agreements, and national provisions, accepts as valid the subjects or credits taken and passed by a student in another institution of the same level based on the correspondence between quality of credits and the content of the subjects to be co-validated” Source: Bello, Rafael E. y Almonte, Gladys. (Comps). (2001). Glosario sobre Educación Superior, Ciencia y Tecnología. Subsecretaría de Estado de Educación Superior, Ciencia y Tecnología. Dominican Republic.” Available at: <http://www.iesalc.unesco.org.ve/general/glosario.asp>

33 “The comprehensive analysis of entry profiles, on the one hand, identifies the specific kinds of learning that lend identity to the profession-course and, on the other, identifies the generic or cross-cutting learning in the family of professions and, in some cases, another family of professions. The levels in the description of the profession can be (...) [general], for the purpose of recognizing complementary or partial studies in other institutions of Higher Education.” (Fortes, 2007:93).

should be ratified and implemented, including certification of the skills, competences and abilities of graduates, making it easier for students to change courses, in order to facilitate mobility within and between national systems.

In Article 11, in the paragraph referring to actions that should be carried out on the international level, UNESCO includes among these the fostering of student mobility through support for committees responsible for the application of regional agreements³⁴.

Thereafter, UNESCO continued with the analysis of the application of these agreements. Among recent those mentioned are:

- First Global Forum, Paris France, October 17-18, 2002
- CMES+5, Paris, June 23-25, 2003
- Second Global Forum, Paris, June 26-28, 2004
- 33rd UNESCO General Conference, Paris, 2005

In Latin America and the Caribbean, IESALC-UNESCO organized meetings to prepare a proposal of changes to the 1974 text of the regional agreement. In the sessions that took place in Bogotá, Colombia in November 2005, it coordinated the preparation of a “draft of proposals and recommendations formulated in accordance with the Meeting of the Regional Agreement for Recognition of Studies, Qualifications, and Diplomas of Higher Education in Latin America and the Caribbean held in Bogotá in November, 2005”. In its general considerations, the document suggested reforms of the 1974 text with the double purpose of amending it and adapting it to current circumstances. The major recommendations were:

- A more strict redefinition of the areas of competencies of the agreement, dealing with its exclusive application to the pursuit of academic studies. The proposal sought to resolve a situation in which, in various countries of the region, recognition of degrees serves at the same time for certification for professional activities.
- The establishment of “*terms that effectively make comparability possible*”, given that the 1974 text did not do so “*except through generic declarations regarding study plans and to skills developed outside universities or institutions of Higher Education. The agreement also lacked mechanisms and criteria for establishing, or at least declaring, equivalencies*” (IESALC, 2005:1).

The specific features of the proposal may be summarized by the following points:

- Differentiate academic recognition and authorization for professional activity, “placing emphasis on academic recognition, and leaving development of the professional exercise theme for a different agreement, without failing to recognize progress that had taken place in this matter” (IESALC, 2005:2).

34 “Article11. UNESCO and other inter-governmental and non-governmental organizations that work in the field of Higher Education, states, through their bilateral and multilateral cooperation programs, the university community, and all interested parties should foster international university mobility as a means to move knowledge forward and to share it in order to create and foster solidarity – a major element in the future world society of knowledge, including through strong support for the joint work plan (1999-2005) of the six intergovernmental committees charged with the application of regional agreements on recognition of studies, diplomas, and qualifications of Higher Education, and through large-scale cooperative action, with particular emphasis on South-South cooperation, the needs of less advanced countries, and in small states that lack establishments of Higher Education or have very few.” (UNESCO, 1998 en: http://www.unesco.org/education/educprog/wche/declaration_spa.htm)

- Specify the effects of academic recognition on “student mobility, the continuation of study , graduate training, and on academic mobility for the exercise of teaching at the tertiary level, according to local norms, as well as for fostering scientific and technological research and access to areas of knowledge not developed locally” (IESALC, 2005:3)
- Grant “priority attention to mutual recognition of competencies and academic achievements and to the certification of partial studies” (IESALC, 2005:4), incorporating the notions of performance standards and competency profiles “establishing processes of convergence at member country levels, establishing the minimum skills necessary that would be desirable and expected of professionals and graduates, noting the performance standards that should be certified and accredited by the respective training institutions” (IESALC, 2005:5).
- Include legibility and transparency of qualification and certifications “through a system that allows official qualifications to be accompanied by information necessary to guarantee transparency in regard to the level, context, and content of teaching and of skills certified by each title. In regard to the comparability of partial studies, the new project contained the definition, design, and establishment of a credit allocation system applicable by all contracting states, without abandoning national systems”. (IESALC, 2005:5).
- Consolidate the participation of accreditation agencies in guaranteeing quality, in order to contribute to the establishment of “public trust” in recognition via CRALC (IESALC, 2005:6).
- In light of the growing complexity of coordinating Higher Education in the region, it proposed the establishment of:
 - “(a) a Higher Education observatory in the region
 - (b) a level of coordination of accrediting and quality assurance agencies of member states
 - (c) promotion of the terms of the agreement and the initiatives that result from the periodic meetings of member countries” (IESALC, 2005:7).

This proposal was examined during the 12th Ordinary Meeting of the Intergovernmental Committee held in El Salvador in April, 2006. Besides officials from UNESCO Paris and IESALC-UNESCO, participants included representatives of the following countries: Argentina, Bolivia, Colombia, Ecuador, Honduras, El Salvador, Mexico, Panama, Peru, and Paraguay. The changes reached in the 1974 text by participants of the meeting resulted in proposed changes of 26 paragraphs of the 21 articles and introductory considerations; the insertion of 7 new ones, and the annulment of one (in regard to professional exercise), with the text of the other 16 remaining unchanged.

Among the changes proposed by the agreement, the most important are organized around the following themes:

- Proposal for adoption of conversion mechanisms dealing with the comparability of studies, specifically the Academic Credits System of Latin America (SICA) and Complements to Degrees (CAT) elaborated within the framework of the 6x4 Program art. 2, ii³⁵. The

35 “The tasks carried out in the working groups sought to provide information, analysis, and recommendations on aspects and elements necessary for developing a system of academic credits for Latin America in harmony with the European ECTS. In the first year, through the analysis and comparison of credit systems or mechanisms for quantifying studies used by participating institutions and in their countries a common system of credits was defined for participating institutions that served as a basis for the SICA proposal. In addition, a proposal was carried out of a complementary document on the subject, CAT, that is being used in the participating institutions of the project.” (Malo, 2006:5).

advantages and uses of both mechanisms are stated in the first commitment to immediate action, included as new in the revised version of the agreement.

- Commitment to foster convergence, based on the definition of professional profiles and of accredited skills (art. 6)
- Inclusion of the consolidation of mobility programs and the development of comprehensive academic graduate and research programs.
- Central involvement of accreditation agencies in the certification of knowledge, skills, and experiences “in the legibility and transparency of certifications, diplomas, qualifications, and academic degrees granted by universities and institutions of Higher Education in member countries of the agreement in order to facilitate their recognition”, in the definition of “assessment and accreditation systems and mechanisms and of programs that can be recognized by the contracting states” (sec. ii.c, Art.2.) and in the assurance of quality . This is incorporated into the mechanisms and application entities of the agreement (art.8).
- The document defines the users of the agreement (students, graduates, teachers, and researchers, instead of students and professionals) with the subsequent restriction in the areas of application of the agreement to the “exercise of academic tasks of teaching or of research in Higher Education” and the continuation of studies (art. 1, Definitions).
- Doubles the number of meetings of the Regional Committee – once per year (art.11).
- Restricts the territorial limits of application of the agreement to countries of Latin America and the Caribbean, opening its signing and ratification to this area (art.14).
- Re-defines the notions of middle Higher Education, Higher Education, and partial studies, and specifies those of graduates, degree holders, and student mobility.
- Introduces new principles for the functioning of the agreement (transparency, quality, and mutual trust) and adds an ethical dimension (non-discrimination for reasons of nationality, gender, race, religion, social condition, sexual orientation, ideology, or special needs).

Currently, this proposal is being examined by the countries of the region.

Recognition of studies, recognition of qualifications, and the free transit of persons in processes of economic sub-regional integration in Latin America and the Caribbean

Historically, Latin American countries signed bi-lateral agreements, as well as the above-mentioned multi-lateral conventions in order to mutually recognize qualification and degrees for the exercise of professions or the pursuit of studies. The former either referred specifically to recognition, or were inserted in more general education or cultural agreements. For example, in the case of Colombia, there are 48 agreements of this kind. Only 12 are specific (see: <http://www.mincomercio.gov.co/econtent/home.asp>).

Beginning in the 1990s, according to a dynamic of economic liberalization and sub-regional integration, trade agreements also contained articles on the free transit of highly-qualified labour, cross-border education services, and on the offer of professional services. To foster them, the agreements specified that the recognition of skills and university diplomas for professional practice should not serve as a pretext for limiting opportunities for professional ex-

ercise outside. A review of the agreements reported by Latin American countries to the WTO shows that in the last 12 years the following agreements met this description.

We present below a list of agreements in this area reported to the WTO³⁶:

- **Mexico –Costa Rica Agreement, January 1, 1995:** Chapter IX, “General principles on the trade of services, articles 9-13: recognition of qualifications and granting of professional licenses.
- **Mexico-Nicaragua Agreement, July 1, 1998:** Third part. Trade in services. Chapter X, General principles for trade in services, annex to articles 10-12, professional services
- **Mexico-Guatemala Agreement, March 15, 2001, Mexico-Honduras, June 1, 2001, Honduras and The Salvador, March 15 2001:** Chapter X, Cross-border trade in services, articles 10-12, granting of permissions, authorizations, and licenses, and annex on professional services.
- **Mexico-Japan, April 1, 2005:** Chapter 8, Cross-border trade in services, article 104, granting of licenses and certifications.
- **Chile - Canada, July 5, 1997:** Third part, investments, services, and related matters, , Chapter H, Cross-border trade in services, article H10, granting of licenses and certifications.
- **Chile - United States, January 1, 2004:** Chapter 11, cross-border trade in services, article 11.9, mutual recognition.
- **Chile – Republic of Korea, April 1, 2004:** Part III. Investments, services, and related subjects, Chapter 11, granting of licenses and certifications.
- **Costa Rica-Canada, July 5, 2007:** Part III, services and investments, article VIII.3. Services.

These economic agreements contain mechanisms and conditions of recognition and supply of information, whether through traditional channels or through the development of norms or common criteria in regard to different aspects. In the case of the Mexico-Chile Agreement, they include the following dimensions:

a) education: accreditation of schools or of academic programs, b) examinations: qualification examinations for obtaining licenses, including alternative methods of assessment such as oral examinations and interviews; c) experience: duration and nature of experiences required for obtaining a license; d) conduct and ethics: norms of professional conduct and on the nature of disciplinary measures in case professional service providers so agree; e) professional development and renewal of certification: continued education and the corresponding requisites for conserving professional certification; f) area of action: extension and limits of authorized activities; g) local knowledge: requirements regarding knowledge of aspects such as laws and regulations, language, requirements of residence such as deposits, insurance for professional responsibility , and client reimbursement funds to assure consumer protection.³⁷

36 Available at : <http://www.wto.org>

37 Available at : (<http://www.wto.org>)

In order to follow up and to fulfil their obligations, the parties associated with each agreement made up an ad hoc committee “of the following authorities and governmental and non-governmental officials: a) for El Salvador: the National Higher Education Office of the Ministry of Education; b) for Guatemala: the Universidad de San Carlos de Guatemala and the Asamblea de Presidentes de the Colegios Profesionales; c) for Honduras: the Universidad Nacional Autónoma de Honduras and the Federación de Colegios Profesionales Universitarios de Honduras; and d) for Mexico: the Dirección General de Profesiones de the Secretaría de Educación Pública” or they convoke competent governmental authorities or those from professional associations (Mexico-Costa Rica and Mexico-Nicaragua agreements).

Among sub-regional trade integration initiatives in Latin America dealing with mechanisms for the recognition of Higher Education qualifications are the Common Market of the South (in force since November 29, 1991) MERCOSUR (Fernández Lamarra, 2004; Stubrin, 2007) includes Argentina, Brazil, Paraguay, and Uruguay plus Chile, Bolivia, Peru, and Venezuela as Associated Members. There is also the *North American Free Trade Agreement* (or NAFTA) between Mexico, the United States, and Canada, which entered into force on January 1st 1994 (Barrow, Didou and Mallea, 2003). For its part, the *Consejo Presidencial Andino* – made up of Bolivia, Colombia, Ecuador, Peru and Venezuela– in its XIII Meeting held in Carabobo (Venezuela), in 2001, charged “the Commission of the Andean Community to adopt, in a meeting with ministers of education and before December 31, 2001, a decision for the harmonization and simplification of procedures for the recognition of professional qualifications and diplomas as well as of advanced studies”.³⁸

Both NAFTA and MERCOSUR prohibit any form of discrimination due to reasons of residence and nationality between the partners. However, their strategies have been different for dealing with the lack of information in regard to the contents certified by a degree, to reduce the resulting suspicions that arise, and to control against protectionist tendencies that are particularly pronounced in more-developed countries of the region, and among professional associations with consolidated traditions of collegiality and regulation³⁹.

Article 10-12 “The granting of licenses and certificates” of Chapter X “Cross-border trade in services” of NAFTA eliminates all nationality or permanent residence requirements and in its corresponding annex establishes “procedures for the recognition of education, experience, and other norms and requisites that regulate the providers of professional services”. It recommends the establishment of tri-national committees in order to facilitate the development of norms and criteria. To date, no reciprocity of conditions has been achieved, except for some professions, and its attainment is doubtful, principally between Mexico and the United States, due to asymmetries in professional accreditation and certification processes.

The following are the TLCAN dispositions regarding recognition:

“Part Five. Chapter XII Article 1210: Licensing and Certification. Where a Party recognizes, unilaterally or by agreement, education, experience, licenses or certifications obtained in the territory of another Party or of a non-Party:

38 Available at : (<http://www.comunidadandina.org/documentos/actas/valencia.htm>)

39 “States, in their eagerness for hyper-regulation, restrict the professional exercise of foreigners who are graduates from other countries, and find in professional associations strong allies for promoting protectionist and restrictive policies against foreign competition. For example, absurdly, the degrees of foreigners trained in one country (e.g., Mexico and Argentina) are not valid for professional exercise in the territory in which they were trained. (Del Bello and Mundet, s.f; 4-5).

a) nothing in Article 1203 shall be construed to require the Party to accord such recognition to education, experience, licenses or certifications obtained in the territory of another Party; and

b) The Party shall afford another Party an adequate opportunity to demonstrate that education, experience, licenses or certifications obtained in that other Party's territory should also be recognized or to conclude an agreement or arrangement of comparable effect.

Annex 1210.5 refers to measures adopted or maintained by a Party related to the granting of licenses or certificates for the supply of professional services.⁴⁰

In MERCOSUR, the Meeting of Ministers of Education began activities in 1991, and an independent education sector was established in 1992⁴¹. In 1998, the XIV Meeting of Ministers approved a memorandum of understanding which considered the design of Experimental Course Accreditation Mechanism (MEXA)⁴².

MEXA is a procedure that accredits courses in medicine, engineering, and agronomy through the establishment of committees of regional peers and the application of common parameters defined by consultative commissions of specialists in institutions of higher learning of the member countries of MERCOSUR that so request.

Chapter IV of the memorandum of understanding on the implementation of MEXA states that, although the accreditation of a degree course does not automatically enable graduates to practice professionally in another country of the zone, it does oblige the Party states to recognize the title as a university degree. Beyond its repercussions on national accreditation processes in particular countries (for example, in Argentina) of its extension since placing operation since 2003 24 courses in agronomy, 25 in engineering, and 19 in medicine (Landinelli, 2007:6) and of the incorporation of 4 other courses to the accreditation process (architecture, nursing, odontology, and veterinary medicine), one should note that not all of the initial expectations were fulfilled. Although validation of the mechanism made possible putting into place a mobility program for a small number of students enrolled in accredited courses in the region, its contribution to the improvement of recognition of qualifications is the object of congratulations, but of doubts as well:

The free movement of professionals between the countries of the area of integration was a fundamental motive in the development of MEXA-MERCOSUR. Leaders of national professional associations and their networks or regional confederations supposed that accreditation on the part of the international group would facilitate the recognition of qualifications on the part of participating countries. However, the academic diplomas recognized by governments involve certification for the exercise of the respective professions. Obtaining state recognition in another country involves an arduous and uncertain administrative and academic process (Stubrin, 2007:47).

40 Available at : http://www.ftaa-alca/sitemap_s.asp

41 Available at : (http://www.me.gov.ar/spu/guia_tematica/ENCIU/enciu_mercosur.html)

42 "Within this framework the ministers of education of the countries of MERCOSUR, together with those of Bolivia and Chile, signed a "memorandum of understanding on implementation of an experimental course accreditation mechanism for recognition of university degree qualifications in MERCOSUR" that established the design of an experimental mechanism for the development of activities related to university assessment and accreditation (MEXA)" (Villanueva, 2004 at: <http://www.rieoei.org/rie35a05.htm>).

Thus, “The small scale of achievements attained and the time invested indicate the construction, through academic logic, of reciprocal trust is much more difficult than one supposed” (*ibid.*).

Finally, it should be emphasized that an international economic agreement had influence on the vital importance of the problem of recognition in the region. When the World Trade Organization (WTO) included Higher Education among its services after the Doha Round (Qatar, 2001) of negotiations of the General Agreement on Trade in Services (GATS), it recommended that its members adopt harmonization or other agreements, sign conventions, or make decisions in an autonomous manner in order to solve the problems detected in terms of the mutual recognition of qualifications and degrees.⁴³

Dispositions on Recognition OMC/GATS: PARTE II. Article VII – Recognition: a Member may recognize education or experience obtained, requirements met, or licenses or certifications granted in a particular country. Such recognition, which may be achieved through harmonization or otherwise, may be based upon an agreement or arrangement with the country concerned or may be accorded autonomously”.⁴⁴

Both the multiplication of classical bilateral agreements of the recognition of studies, as well as the inclusion of dispositions on the recognition of education credentials in economic integration agreements signed by countries of the region, or the position of the WTO indicate that the subject, above all in the matter of professional exercise, is a sensitive one in Latin America. It is so because of the intrinsic heterogeneity that exists between systems (Pachiana and Villanueva, 2005); and also due to its impacts on the circulation of human resources (professionals and students) and in the processes of sub-regional integration as well as to its impacts in areas such as consumer protection of professional services and the rights of students.

3.3.2. Higher Education networks and associations

There are many studies that treat academic and scientific networks that explain their origins, meaning, importance, diversity, themes, scope, etc. The majority are limited to a kind of inventory of networks and associations that function in the region, with little analysis of them and of their impact on the integration of Higher Education in the region, a subject that is not exhausted by this presentation.

Societies in networks, knowledge, and new technologies

In 2005, UNESCO presented a world report titled “**Toward Knowledge Societies**” that offered a future panorama of the changes that we are witnessing at the global level. The report

43 **Cross-border supply:** the following are considered to be specific barriers: lack of opportunity of accreditation as an institution able to grant qualifications; the requirement to make use of a local partner; legal barriers; import restrictions of educational material.

Consumption abroad: the following are considered to be specific barriers: visa requirements; recognition of foreign qualifications; quotas for foreign students; employment restrictions during time of study; recognition of qualifications in the country of study.

Commercial presence in the consumer country: the following are considered to be specific barriers: prohibition of the provision of service on the part of foreign entities; non-access to a license to grant a recognized title; recruiting restrictions of foreign teachers; high subsidies to local institutions.

Presence of physical persons: the following are considered to be specific barriers: immigration or residence requirements; recognition of qualifications; employment regulations. (Hermo, 2004:4)

44 Available at : http://www.ftaa-alca/sitemap_s.asp

states that “*the third industrial revolution has been accompanied by a change in the regimen of knowledge. In this regard, reference has been made to the advent of a dual paradigm: that of the immaterial and that of networks*”⁴⁵

The basic explanation of networks in the report begins with the statement:

It is true that in any social organization there is a set of networks within which individuals maintain special relationships, whether family, ethnic, economic, professional, social, religious, political, or all of these simultaneously. But in the context of the information revolution, forms of organization have been created that no longer conform to the logic of spatial centrality and the poles of conventional decision-making. Traditional vertical hierarchies are giving way to burgeoning horizontal relationships, often transcending social and national frontiers. While it is in theory possible to access and participate in the networks from all parts of the globe in countries of the North as well as from the South, reality is that large and more powerful networks are found to form localized “hubs”, part and parcel of the new urban reality of “global cities”, such as Tokyo, London, or New York, which today are developing interactions among themselves through the interplay of international investments, cross frontier movements, or financial exchanges.⁴⁶

This observation should always be taken into account in Latin America, due to its high levels of inequality and social exclusion and incipient scientific and technological development.

On the other hand, the creation of networks, within the conditions of current development, make it possible to end the isolation of an entire set of knowledge – for example, ethnic, linguistic, scientific, technical, artistic, and literary. This global phenomenon has broad possibilities of growth in Latin America and the Caribbean through the formulation of new policies that recognize the diversity and multi-ethnic character of our communities. Working in networks is indispensable in universities for the development of research, teaching, or service to society.

This conception of knowledge societies comes from the notion of the information society based on technological progress, recognizing cultural and linguistic diversity, refers to societies in the plural and embraces economic, social, ethnic, and political dimensions.

Knowledge societies are societies in networks that offer greater awareness of world problems thanks to being able to share in taking advantage of scientific research between north and south. The creation of networks in centres of knowledge, and common use of pertinent information by the academic and scientific communities has opened up new prospects to the public sphere of knowledge.

Currently, the revolution of information and communication technologies, and the appearance of the Internet have created conditions for broadening the public sphere of knowledge, which since the Enlightenment has been considered as the ideal of humanity and is a fundamental element of UNESCO and its constitution. Universities with a high sense of social responsibility in their teaching and research activities consider it to be an essential part of their tasks. Latin America has maintained the principle of the defence of the public character of education and knowledge, thanks to the position of universities and of some governments. In a long-term vision of Latin America and the Caribbean, this is vital.

45 First UNESCO World Report: Towards Knowledge Societies. Paris, UNESCO, 2005, p. 49.

46 *Ibid.* p.50.

Regarding the impact of the new technologies on network-based knowledge, UNESCO indicates that the extension of technological developments has affected the way that knowledge is created, transmitted, and treated and in which universities take part, leading to the hypothesis that we find ourselves on the eve of a new era of knowledge.

On the other hand, the report mentions processes that are affecting the organization and development of academic activity, and that in our region have had a relative growth. Among them are the proliferation of virtual objects, transformation of learning areas that had hitherto been exclusive to educational institutions and are not available on-line. With these changes "... very powerful knowledge management systems are being created, both in scientific or governmental entities as well as in large and small companies."⁴⁷

This Latin American and Caribbean perspective is enriched by the experiences of UNESCO, which offers the possibility of participating in the new international structures that are beginning to appear such as the development of UNESCO Chairs and networks of the UNITWIN program, which foster the transmission, dissemination, and appraisal of knowledge.

In addition to the above, the building of networks can be economically feasible due to the relatively low cost of investing in already existing organizations that can benefit from national and international cooperation with the necessary safeguard of the quality of Higher Education, without having to wait to bring together the considerable sums required by the investments and conditions involved in creating new institutions.

University networks and integration processes in Latin America

University networks have been related to the integration processes of Latin America and the Caribbean, not only to economic processes, but especially in cultural and educational areas.

The Cordoba movement, involving the countries of the region, created a political and cultural climate favourable to university integration. From the 1920s to the 1950s, many processes were carried out aimed at scientific, educational, and cultural change, and in most of the countries, universities were considered to be places for integration and change.

Beginning in the second half of the last century, political regime changes in the states of our region, characterized by the establishment of military and often authoritarian governments, sought to reduce university autonomy and in some cases increase state intervention. It was under these conditions that university networks were established, the mission and objectives of which focused on the integration of the region. This was the case of the *Unión de Universidades de América Latina* (UDUAL), or the *Consejo Superior Universitario Centroamericano* (CSUCA) for the Central American sub-region. A more recent example is the *Asociación de Universidades del Grupo de Montevideo* (AUGM), conceived as a network in order to foster university cooperation within the perspective of the economic integration of the countries of MERCOSUR.

Another important referent is that of Europe. Initially, within the framework of the European Economic Community, and later of the European Union, which today includes almost all countries of that continent there has arisen the largest university convergent process in the world, conceived with the vision of creating the European Higher Education Area, the most recognized network of which is the European Universities Association. At the same time, programs such as Erasmus, Socrates, and the European Credits Transfer System were created

⁴⁷ *Ibid*, pág.52.

in order to foster mobility and to facilitate integration.

Integration processes in Latin America, dating from the first half of the XX century, have been accompanied by some university developments. Although unique in some particulars, the regional networks of institutions respond to a series of general motivations with regional, sub-regional, or national implications, including exchange of information, fostering student and teacher mobility, quality improvement, internationalization of curricula, socialization of research, and continued training.

As is occurring at the international level as well, in Latin America and the Caribbean foreign cooperation is no longer a task on the margins of academic life, restricted in most cases to networks among researchers or to a limited mobility of students and teachers, and is becoming a basic dimension of global university strategy and of curricular and administrative reform processes. The fields of inter-university collaboration and academic networks are multiplying, and there is a growing appreciation of the value of the international relations of the university.

The students of our countries no longer prepare themselves solely for their respective national markets, but for regional and global ones as well. Cooperation between universities fosters a renewal of the training acquired, and makes possible the recognition of degrees in a broader geographic area.⁴⁸

One of the most significant curriculum design program experiences in the region is the *Public Macro-University Network of Latin America and the Caribbean*⁴⁹. The declaration issued at the end of the first meeting held at UNAM stated:

... the network is viewed as pertinent, viable, and very necessary, in the perspective of putting into place **cooperative solidarity-based programs related to the mobility of students and academics, research on the frontiers of knowledge** related to solving the most important problems of the majority of the continent, and related as well to graduate study, public financing, and preservation and development of the historic heritage of these important institutions, as long as macro-universities have the greatest regional potential to do so.⁵⁰

Of note in the above statement of purpose of the Macro-University Network is the emphasis on serving the needs of the countries of the region, which is an added value of the greatest importance, and coherent with their public vocation.

Among the objectives of the network as stated in its statutes and that the directly reference to the processes of integration and cooperation we mention the following:

II. Establish a mechanism for dialogue and exchange, as well as for cooperation and joint action on subjects and experiences of common interest for universities

48 Universidad 2000. Informe Bricall, CRUE, Madrid, 2000, pág. 243.

49 Composed of: Universidad Nacional de Córdoba (Argentina), Universidad Nacional de la Plata (Argentina), Universidad Mayor de San Andrés (Bolivia), Universidad de Río de Janeiro (Brazil), Universidad de Sao Paulo (Brazil), Universidad Nacional de Colombia (Colombia), Universidad Nacional de Costa Rica (Costa Rica), Universidad de Costa Rica (Costa Rica), Universidad de la Habana (Cuba), Universidad Central de Ecuador (Ecuador), Universidad de El Salvador (El Salvador), Universidad de San Carlos de Guatemala (Guatemala), Universidad Autónoma de Honduras (Honduras), Benemérita Universidad Autónoma de Puebla (Mexico), Universidad Autónoma de Sinaloa (Mexico), Universidad de Guadalajara (Mexico), Universidad Nacional Autónoma de México (Mexico), Universidad Nacional Autónoma de Nicaragua (Nicaragua), Universidad de Panamá (Panama), Universidad Nacional de Asunción (Paraguay), Universidad Nacional Mayor de San Marcos (Peru), Universidad de Puerto Rico (Puerto Rico), Universidad Autónoma de Santo Domingo (Dominican Republic), Universidad de la República (Uruguay), Universidad Central de Venezuela (Venezuela), Universidad de los Andes (Venezuela), Universidad del Zulia (Venezuela)

50 Available at: <http://redmacro.unam.mx/antecedentes.html>

- of the region in order to create an atmosphere of shared responsibilities, renewing the idea that Latin American integration through education is the principle point of departure for reaching the threshold of a new Latin American identity;
- III. Serve as a means of integration of the public universities of each country;
- IV. Increase working in academic networks to foster joint projects in the region, as well as to define and organize university training and research programs;
- V. Establish systems and mechanisms that make possible sharing the use of scientific, technological, information, and communication infrastructures of member institutions;
- VI. Strengthen regional solidarity and mutual support, aiding in obtaining financial support;
- VII. Foster the harmonization of information systems in the areas of academic subjects and university management;
- IX. Contribute to the development and harmonization of quality assessment and accreditation systems;
- X. Foster personnel training in order to provide new administrative and management models for universities;
- XI. Hold meetings that aid in the development of collaborative programs of interest for member institutions;
- XII. Encourage the participation of member institutions in international, multi-lateral, governmental, and non-governmental meetings and forums in order to guarantee the currency of educational services as a responsibility of national states and of society as a whole.⁵¹

Information is available on the Postgraduate Mobility Program, which during its fourth round selected 100 students. This program has terms of reference for its operation⁵².

Three other programs are developed on the network in addition to that of graduate student mobility: the macro-universities observatory, the multi-media program for preservation of the historical, cultural, and natural heritage of macro-universities, and the program for mobility and regional cooperation in scientific, humanistic, and technological development⁵³.

The Macro-Universities Network represents an important experience of joint effort, and one that merits, as do all good practices, a prudent analysis in order to make its replication possible with other groups of institutions. This is a pending task of the network, as it is to assure that its impact extends over the national systems of Higher Education.

There are also networks in the countries of the region networks composed of those responsible for internationalization in institutions of Higher Education. These networks have different origins, organization, structure, and size, as well as different dynamics and levels of consolidation.

In the case of Colombia, the *Colombian Network for the Internationalization of Higher Education* (RCI) was established in 1994, but took its first steps in 1996 at the meeting held at the end of that year with 80 representatives of public and private institutions of Higher

51 Available at: <http://redmacro.unam.mx/estatutos.html>

52 For additional information, consult, "Programa de movilidad universitaria de la red de Macrouiversidades Públicas de América Latina y el Caribe. Criterios de operación". At www.unesco.org/ve/.../Programa%20de%20Movilidad%20Univ.%20de%20la%20Red%20de%20Macrouiversidades.pdf

53 Teneud Luis. Programa de Cooperación y Movilidad Regional en Investigación Científica, Humanística y Tecnológica. Área Temática IX: Neurociencias. Informe.

Education. It is organized in regional poles that correspond to the geographic regions of the country⁵⁴. Each regional pole has a coordinator in order to facilitate communication and task organization. These coordinators are members of a national coordinating committee that meets periodically in order to coordinate the work of the different poles, analyze progress, and share experiences.

Chile has an International Cooperation Commission of the Council of Rectors of Chilean Universities.

a network composed of 25 individuals responsible for cooperation and international relations, which since its creation has sought to be a venue for meeting, discussion, analysis, and training in order to foster and stimulate the internationalization of its member universities, and that today constitutes the only university network in these subjects in the country. It carries out its activities in three major areas: training in cooperation management, dissemination of information, and promoting the university system abroad, together with the export of its educational services.⁵⁵

Argentina has a network of international relations authorities of public universities, within the framework of the National Inter-University Council (CIN). This network was created in 1999 in order to “establish a forum for promotion of the internationalization of universities and to foster a synergetic effort among them.”⁵⁶

The Association of Universities and Institutions of Higher Education -ANUIES- brings together the principal institutions of Higher Education of Mexico, in order to “foster their comprehensive improvement in the fields of teaching, research, and the extension of culture and services”.⁵⁷ ANUIES has an executive council that includes an office of international cooperation, the purpose of which is “to support affiliated institutions in the creation and strengthening of cooperative relations with counterparts in other countries through the establishment of programs and agreements that foster the exchange of students, teachers, and researchers”⁵⁸

In Brazil, the *Forum de Assessorias das Universidades Brasileiras para Assuntos Internacionais* was founded in 1988, and brings together managers and authorities of Brazilian universities in order to:

Foster the integration and the training of managers in the area (of internationalization) through seminars, workshops, and regional meetings in order to disseminate the diversity and potential of Brazilian institutions of Higher Education before development agencies, diplomatic representations, organizations, and international programs.⁵⁹

In Paraguay, the internationalization network is a recent creation.

These national networks have the potential to support inter-university internationalization and cooperation processes, and have made efforts in this sense in order to make up a kind of

54 The six regions are: Norte (Atlántico, Bolívar, Cesar, Córdoba, Guajira, Magdalena); Oriente (Norte de Santander and Santander); Occidente (Antioquia and Chocó); Centro Occidente (Caldas, Caquetá, Huila, Quindío, Risaralda, Tolima); Sur Occidente (Cauca, Nariño, Valle del Cauca); Centro (Boyacá, Casanare, Cundinamarca, Meta) and Bogotá D.C.

55 Ramírez, Carlos. (2004) “La internacionalización de la educación superior en Chile”. Santiago.

56 Theiler, Julio. “Internacionalización de la educación superior en la República Argentina”

57 Available at: http://www.anui.es/la_anui/que_es/laanui.es.php

58 Available at: http://www.anui.es/c_internacional/index.php?clave=bienvenida.php

59 Available at: <http://www.belta.org.br/faubai/faubai/index.html> Traducción libre

network of networks for increasing the interaction between the support offices that universities in the region have organized, and with this purpose have held a first meeting in Argentina⁶⁰. However, this network needs to organize efforts with other existing organizations such as the *Unión de Universidades de América Latina* (UDUAL), the *Red de Universidades Regionales Latinoamericanas* (Red UREL), the *Asociación de Universidades de América Latina y el Caribe para la Integración* (AUALCPI), and the Red Latinoamericana de Cooperación Universitaria (RLCU) in order to avoid proliferation of institutions with the same or similar goals.

Processes of convergence and university networks

Recent years have witnessed the growing importance of what Sylvie Didou calls experiences of convergence of Higher Education in Latin America,⁶¹ that has made possible the creation of networks or the participation of university networks around them.

One example is the regional graduate study system in Central America fostered in the Central American University Confederation under the direction of CSUCA. Another example is that of the Experimental Accreditation Mechanism of MERCOSUR plus Bolivia and Chile (MEXA), created as a country-to-country tool for international development and integration around the subject of assessment of the quality of academic programs. A third example is the Project Tuning – Latin America, which although based on European experience, is Latin American, and defined as “an area for reflection of actors committed to Higher Education, which through the search for consensus, contributes in a coordinated manner to making progress in the development of easily comparable and understandable degrees in Latin America”⁶² which covers 19 countries and includes in its first phase more than 190 Latin American universities to work in four areas: competencies, academic credits, teaching focuses, and learning, assessment, and quality. The results of this project have been published⁶³ and there one may find a seed that will serve for the future convergence of Latin American and Caribbean universities. A fourth experience is the 6x4 UEALC Project, developed in six professions with four focuses of analysis, and with the participation of 52 Latin American universities and 4 university associations, with progress in areas such as professional competencies, the development of a proposal for credit transfers in Latin America, and research and innovation. The project ended in October, 2006. Its results have not yet been published.

New possibilities: discipline and teacher networks

Of note among the new possibilities offered by the creation of Higher Education networks are those of disciplines and of teachers. These networks make it possible to take advantage of the strengths of an institution, a department, or a research group for the benefit of a greater number of institutions, in order to teach specialized subjects in a geographically dispersed, and even itinerant form, and concentrating on one or various weeks of classes. This would make it possible to offer new knowledge or that of a very high level to interested groups of students who, without this format, would not have access to such information.

Working through networks is a need in contemporary teaching. Teachers who are respon-

60 The meeting was held in Argentina, with the participation of Brazil, Chile, and Colombia.

61 Didou Aupetit, Sylvie and others (2007). *Experiencias de Convergencia de la Educación Superior en América Latina*. Mexico, Cinvestav-Unesco.

62 *Op. Cit.*

63 Available at: <http://www.unideusto.org/tuning/tuningal/>

sible for a fundamental university task should be part of knowledge networks related to their fields of activity. The new perspective is to think about scenarios in which one can amplify the effects of these processes for organizing and developing academic work, with the support of states or institutions of Higher Education.

The report shows that teachers of institutions with few financial resources can become overwhelmed by teaching duties and limit their activities of research and reduce their quality, and by so doing diminish as well the attraction of students and their appropriateness to the needs of society.

An aspect to bear in mind as Latin America faces the problem of a brain drain is the contribution of networks to reducing this risk, which is a permanent concern of poor countries due to the great attraction that those with advanced levels of training feel for more developed countries. Even within countries, there is a flow of human talent away from less developed regions toward capitals and larger cities, or toward more prestigious institutions. The cited report advances the hypothesis that “(the brain drain) ... could be arrested in part, and even stopped in the future by a **brain circulation**, beneficial to all” as well as “contributing to maintaining cultural diversity due to the possibilities offered by absorbing the culture of the countries that they visit regularly”.

This perspective should be taken into account by our governments and by the authorities of our institutions in seeking formulas to attenuate or reduce the negative effects of the brain drain.

The integration of Higher Education in the english-speaking Caribbean

In the Caribbean, there are clear examples of integration that deserve mention due to the lessons that they offer. To this end, we cite the model of the University of the West Indies (UWI) due to its being a multi-lateral project and very committed to the region. A second example is the Association of Universities and Research Institutes of the Caribbean (UNICA) due to the regional profile that guides its mission.

University of the West Indies (UWI)

The UWI is an autonomous regional institution which serves and supports 16 countries and territories in the Caribbean that have English as their native language: Anguila, Antigua and Barbuda, Bahamas, Barbados, Belize, the British Virgin Islands, the Cayman Islands, Dominica, Granada, Jamaica, Montserrat, Saint Kitts and Nevis, Santa Lucia, St Vincent and the Grenadines, Trinidad and Tobago, and the Turks and Caicos Islands. All of these countries are members of the Caribbean Community of Nations (CARICOM). The objective of the university is to aid in “unlocking the potential for economic and cultural growth” in the West Indies, that make possible the improvement of regional autonomy.

The university has three campuses: Mona, in Jamaica, San Agustín in Trinidad and Tobago, and Cave Hill in Barbados, together with a satellite campus in Mount Hope, in Trinidad and Tobago, and a Centre for Hotel and Tourism Management in Nassau, Bahamas. Established in 1948, the university was originally founded as the University College of the West Indies (UCWI) in Mona, Jamaica, with a special relationship with the University of London. It achieved the independent status of a university in 1962. The St. Augustine campus in Trini-

dad, the former Royal Tropical Agricultural College, began in 1960, and the Cave Hill campus in Barbados was founded in 1963. University centres, each directed by a resident tutor, are in each of the other 13 contributing countries. The University of Guyana was created and incorporated in April, 1963.

There are schools that are common to all campuses, such as humanities, education, and social sciences. Cave Hill and Mona have a school of pure and applied sciences, while St. Augustine, Trinidad and Tobago house the school of exact and natural sciences and the school of agriculture. Barbados has a law school; undergraduate students in Mona and St. Augustine who complete the first year at their respective universities then go to Cave Hill. The Mona campus, in Jamaica, and St. Augustine in Trinidad and Tobago have the school of medicine. St. Augustine also has the school of engineering.

The UWI is committed to the development of the region “is committed to the development of the region through the training of its human resources, conducting research, delivering advisory services to governments as well as to the private sector and forging links with other institutions in the wider region and the rest of the world”.

The following factors will be of special importance for the UWI in the next decade:

- The dynamic of knowledge-based societies and economies.
- The multiple repercussions of globalization, with special reference to the General Agreement on Trade in Services (GATS).
- The commitment of the public policies of countries that contribute to the expansion of participation of tertiary education.
- The continuing revolution in information, computers, and telecommunications.

At the regional level, goals include the ability to produce leaders in all areas of activity of a student population increasingly more diverse in terms of skills, former preparation, aptitudes and interest, links and retention of high-quality students and teachers in the face of global competition for talent at all levels, growth in the number of tertiary institutions financed by the national public sector, including new universities that directly compete with the UWI for teachers and financing, the need to build and increase the capacity for research and innovation in the absence of national and regional structured mechanisms for the financing of pertinent research, and maintenance and improvement of teaching and research norms of an increasingly diverse student body in terms of previous academic preparation, interests, and aptitudes.

On the other hand, there are abundant opportunities such as: the creation of new knowledge, growing demand for highly-qualified workers, recognition of the importance of continued learning and professional training to feed the demand for Higher Education, the development of research and innovation capacity to increase the impact of the university in the region that make possible optimum utilization of technologies and opportunities for strategic alliances with other universities, knowledge networks, and the business sector in the niche of fields of research and development that can improve the institution and the international reputation for access to resources.

Strategic Plan 2007-2012 of the UWI lists among its strengths the following:

- Its special condition as a regional institution with the support of 15 member countries in

which it is present;

- Its reputation as a high-level institution; its exceptional concentration that is unique in the region, of highly-qualified personnel who are specialists in a broad range of disciplines;
- Its possession of an unequalled source of specialized knowledge of Caribbean issues;
- Its recognized leadership in Higher Education in the region;
- The notable achievements of its graduates in leadership positions in many regional and international areas that symbolize its institutional excellence;
- The important intellectual production of its academic personnel over the years, making it a very respective institution for advising the governments of CARICOM, and its role as a source of research and the service of specialists for many successful businesses in the region;
- The unequalled beauty of its campuses.

However, in order to improve the pertinence and efficacy, the institution should address itself to existing weaknesses such as:

- Instability of financing and marked dependence on the support of central governments;
- The deterioration of the regional characteristics of the university as a result of the fact that the large majority of students are from the host country of the respective campuses;
- The need for more active participation of interested parties from outside;
- The need to improve dissemination of information about the results of research within the institution;
- The rapid growth of enrolments in recent years, without an increase in resources;
- The need for a modernization of management systems;
- The need for a change in institutional culture to foster behaviour and results fully coherent with the commitments and aspirations of the institution.

The Association of Caribbean Universities and Research Institutes (UNICA) ⁶⁴

The Association of Caribbean Universities and Research Institutes (UNICA) were created in 1967 to foster cooperation between institutions of Higher Education in the Caribbean. UNICA facilitates academic contacts and the carrying out of collaborative projects. Moreover, it initiates projects that bring together institutions and academics of the Caribbean region, supports Higher Education in the Caribbean, without disregarding the strengths of local cultural history with which it enhances the diversity of the region. UNICA is, therefore, multinational, multi-lingual, and multi-cultural.

The creation of UNICA coincided with attempts by English Caribbean political authorities to rehabilitate the concept of regional cooperation through the federation of former British colonies. UNICA provided a definition of the Caribbean that included, independent of linguistic and cultural differences, all countries in the Caribbean. Thus, besides the English-

⁶⁴ The associates are: Universidad de Puerto Rico, University of the Virgin Islands, Université d'Etat d'Haiti, Université des Antilles et de La Guyane, Université Quisqueya (Haiti), Universidad Tecnológica del Caribe (RD), Universidad Nacional Pedro Henríquez Ureña, Universidad Simón Bolívar (Venezuela), Instituto Tecnológico de Santo Domingo, Universidad Interamericana de Puerto Rico, Universidad Iberoamericana (RD), University of the Netherland Antilles, Universidad del Sagrado Corazón (Puerto Rico), University Of West Florida & Sbdc Network, University of the West Indies, Pontificia Universidad Católica Madre y Maestra (RD), Universidad Tecnológica de Santiago (RD), University Of Technology (Jamaica), Université Notre Dame D'Haiti, University Of Guyana, Université Caraïbe (Haiti), Institute of International Relations (Trinidad), Institute Of Social & Economic Research, U.W.I., Institute Of Caribbean Studies, U.P.R., Instituto de Estudios Caribeños (Colombia), Observatorio del Caribe Colombiano.

speaking countries, it includes institutions of Higher Education in countries such as Puerto Rico, Dominican Republic, Haiti, Curaçao, Martinique, Guadeloupe, Guyana, Venezuela, and Colombia. It currently includes institutions in Aruba, Surinam, St. Maarten, the Caribbean, the Medgar Evers Research Centre College, in New York and places distant from the Caribbean such as the Caribbean Studies Centre of the London Metropolitan University.

Before the creation of UNICA, collaboration and cooperation of institutions of Higher Education in the region took place through personal networks. For example, through the Caribbean Institute of the Universidad de Puerto, the academic authorities of that university had connections with intellectual leaders whose native languages were French, English, and Dutch, and who were linked to institutions of Higher Education in the rest of the region. Moreover, foreign language teachers used their links with their counterparts from other regional institutions to foster student exchange programs so that their respective institutions could benefit from their contacts in the Caribbean and other institutions in North America.

The objective of UNICA has been to foster cooperation and collaboration between institutions of Higher Education to help promote the economic, social, and cultural development of the region. Over the years, a series of projects have been undertaken, such as founding of the Association of Caribbean Universities, Research and Institutional Libraries (ACURIL); a vital regional association that now functions independently from UNICA, and the Caribbean Student Exchange Program to facilitate student exchange between member institutions.

Links have also been established with networks such as the Inter-American University Association (OUI), the *Agence Universitaire de la Francophonie* (AUF), the Ibero-American University Council (CUIB). The latter network will facilitate links with the European University Association (EUA). These networks share the same objectives: the creation of strong ties of cooperation in educational, cultural, and human areas; fostering inter-regional exchange between education actors, the strengthening of cooperation in education as a key objective, with emphasis on collaboration between institutions of Higher Education with total respect for autonomy, in particular through university exchange and the development of distance education.

Bi-lateral exchange between institutions has occurred with varying degrees of success. UNICA aids the UWI in the development of strategies aimed at increasing collaboration with other universities, developing associations of a strategic character, granting special attention to French, Spanish, Portuguese, and Dutch speaking neighbouring countries, and recruiting more international students in graduate and research programs.

The latest strategic plan, of 2007-2012, fosters the need to use international associations as a mechanism to be used strategically to achieve international objectives. As the UWI seeks to foster the capacity and international recognition in particular areas of research and innovation, it intends to double efforts in the search for strategic partners within the university network at the world level and between private companies that have skills and experience as well as cutting-edge installations. These measures can facilitate the transfer of knowledge innovation, and access to research funding. Through the supervision and co-execution of international cooperation programs with other universities, it will be developed for expanding academic offerings at advanced training levels and for thus accelerating research in areas of priority knowledge. The university also recognizes that alliances with other universities throughout the world will permit it to achieve greater recognition, attract more international students to its programs,

and help build the international prestige of the university as a competent and respected partner. Such esteem is a consideration that has an influence in the world classification of universities.

Experience in the francophone Caribbean

A workshop-seminar was held in October, 2007, entitled “Harmonization of courses, the offer of common diplomas, and development of a reference system of comparable credits in Haiti and in the Greater Caribbean” within the framework of the UEH/AUF/CORPUCA Project for Harmonization of Courses.

This project was presented by the universities of Haiti, together with another two themes: “Problems of University Assessment” and “University Governability Per Se in order to request financial aid from the *Agence Universitaire de la Francophonie* (AUF), a request that was full accepted.

This project is among the priorities of CORPUCA, with the financial assistance of AUF. Its development is justified due to the absence of:

- A system for comparison of diplomas
- Bases of comparison between different models of Higher Education teaching
- Documents that define modalities for the passage of students from one cycle of a course to another
- Mechanisms and entities for the accreditation of diplomas
- A national and regional regulatory framework

The specific objectives proposed were:

- To foster broad reflection on the issue of the curricular appropriateness of courses and diplomas offered.
- To validate standard formats for the presentation of national Higher Education course offerings.
- To assure regional and international integration of training and of diplomas within national specifications.
- To improve the visibility of training offerings of the universities of Haiti and of the larger Caribbean, progressively constructing the bases of a homologation system such as the L-M-D (Bachelor-Master-Doctorate).

To achieve these objectives, the workshop-seminar treated the following themes:

- The coherence of training content with “occupations”.
- The issue of university equivalencies of courses, programs, and diplomas, and putting into place a system of training accreditation.
- Academic and scientific mobility in regard to the harmonization of courses in Haiti and the Caribbean.
- L-M-D and its implications for a country such as Haiti.

As can be seen both in the objectives and in the themes, the Haitian university is thinking seriously about moving ahead with integration and articulation processes, both national and

international.

It would be interesting to know the results of the project. To date, this has not been possible.

By way of a conclusion on the integration of Higher Education through networks in Latin America and the Caribbean

There have been numerous efforts for decades in the region to establish cooperative links between the institutions of different countries. However, they have not produced significant results in the integration of the Higher Education systems of LA&C. In this regard, Uribe recently wrote:

It is surprising that in spite of repeated policy declarations of the countries of the region, the growing importance of the different inter-university networks, the trans-continental initiatives of cooperation in education, and combined actions of regional inter-governmental organizations, no potent force of cohesion has appeared that lends vigour to the renewed Latin American interest in achieving an integration that transcends the exclusionary inequitable dynamics of the threatening mercantilization of Higher Education and of at times paternalistic policies and actions coming from European academic cooperation.⁶⁵

This raises several questions. Are Latin America and the Caribbean prepared for this convergence? Does it really want it? What has not yet been done to foster the idea of an effective “*Latin American and Caribbean Education Area*”? What is, or what are the organizations that could truly contribute to joining a maximum of trust with a minimum of the conflicting interests that are so frequent in these processes? Can we work as a “**network**” or “**network of networks**” within frameworks that are flexible and with cooperative solidarity without thinking about the statutory and bureaucratic concerns that always appear in these initiatives?

These are subjects that we present more to incite reflection than with the pretension of offering answers in this document.

3.3.3. Internationalization of the curriculum

Perhaps due to being one of the fields of most recent concern in the region, this is where the least progress has been documented. In order to be considered international, a curriculum should fulfil requisites of quality, the utilization of academic credits that serve as indicators of the academic work of students, and also afford comparability and compatibility of degrees.

The internationalization of the curriculum starts from the processes of recruitment of foreign students that are not merely institutional advertising or of the program in countries different from the headquarters of the institution. In this sense, few universities in the region have a consolidated strategy for recruiting undergraduate and graduate students in other countries, although the situation for post-graduate study may be different. An interesting subject is the way this promotion is carried out by the universities in LA&C. In most cases, they do so individually, in contrast to the strategy pursued by universities in developed countries that become parts of consortiums in order to promote their institutions abroad, and even to open promotion offices in other countries.

⁶⁵ Uribe R, J. “Integración, cooperación internacional, redes y asociaciones”. (2007) Unpublished document.

Internationalization of the curriculum requires the incorporation of international referents as well as offering and presenting courses in other languages or study periods for students in countries with different languages than their own in order to contribute to language learning. Although most countries of the region have Spanish as a native language, the continent offers possibilities in other languages such as Portuguese, English, French, and Dutch.

Student time spent abroad should be developed more to facilitate contact with other cultures. Other strategies such as joint courses that groups of universities offer are internationalization options.

A more complex format is offered by double degree programs, and those with joint degrees in which various universities reach agreement in regard to a curriculum and ways to develop it. Sometimes, this curriculum is offered simultaneously in various universities. In other cases, each university offers a part – a course or some subjects. A third option is that universities agree that a student may begin his or her training in one university and then later continue the course in another.

All of these options exist in the region. However, the most common is that with universities of countries outside Latin America and the Caribbean.

In terms of internationalization of the curriculum, they are more clearly recognized in academic communities of the areas of knowledge and in the professions than at the governmental level. In this sense, the experience of the Alfa Tuning – Latin America Project, which we mentioned earlier, is an example of attaining a broad and open academic discussion in order to identify common training referents. This project could, for its part, contribute significantly to a process of internationalization of the curriculum in universities of the region.

The project is a task undertaken by universities in order to offer a better understanding of Higher Education systems in order to facilitate both intra-regional and inter-regional processes of recognition. As we have noted, although it was based on the European experience, its development was entirely a Latin American task. It seeks to tune Latin American educational structures through academic discussion in order to identify common elements existing in the region and to exchange information and improve collaboration between institutions of Higher Education for the development of quality, effectiveness, and transparency, initiated and coordinated by the public and private universities of 19 countries⁶⁶. During development of the first phase, the emphasis was not on education systems, but rather on the structure and content of study, which are direct responsibilities of institutions of Higher Education.

The project worked in 12 areas: business administration, architecture, law, education, nursing, physics, geology, history, civil engineering, mathematics, medicine, and chemistry. The considerations of the groups made up of professors from each of the areas concentrated principally on generic and specific competencies for each degree, and secondarily on the areas of teaching, learning, and assessment. The third line of activity, that of academic credits was treated by a group, composed of representatives of National Tuning Centres, the members of which were from ministries of education and/or councils of rectors or of the associations of participating countries.

It is worth noting that in order to identify both generic and specific competencies the project used consultations with employers, graduates, students, and professors, which made possible a broad participation in compiling more than 42,000 completed interviews.

We will not present the major results here, which may be consulted on the web page of

⁶⁶ Participating countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay, and Venezuela.

the project⁶⁷. Here we merely emphasize a point that became very important during development of the project: the results achieved are not of a prescriptive nor vincular character for universities, but rather should be taken as common referents and not as the only way to define a professional profile.

A final comment on the theme is that it would seem that universities with greater experience in international relations are more amenable to the incorporation of international parameters in the curricula. In this regard, Beneitone states:

Private universities show greater experience in double degree programs and the inclusion of courses taught in a foreign language. Public universities are more developed in curricular compatibility (the inclusion of international parameters in degrees).⁶⁸

It is important to note that the internationalization of curricula is not an easy subject in Latin American and Caribbean universities. Internationalization is seen as “privatization” and “mercantilization” of Higher Education. But it is when it comes to curricula that the greatest resistance appears to making it possible. Thus, it is necessary to begin the task of involving professors, researchers, students, authorities, and administrators in detailed discussions regarding internationalization so that there may be greater understanding of its role in the development of institutions, in the improvement of quality, and other matters. Only in this way, as J. Knight notes, will it be possible to truly integrate the international, global and inter-cultural dimensions of training, research, and extension in institutions of Higher Education.

3.4. The brain drain in Latin America. An unavoidable result of internationalization?

Mobility is seen as a factor that explains in part the international migration of scientists, and this is one of the most important aspects that affect the relations between developing and developed countries. Without considering the qualifications of the migrants, it is estimated that approximately 200 million persons live and work outside of their native countries. This represents 3% world population.

Migration has grown in importance on the international agenda due to the effects of the remittances sent by immigrants to their native countries, which are generally developing countries. The figure is estimated to be in the order of 225 billion dollars in 2005⁶⁹, which has a profound impact in the developing world, and represents the second most-important source of external financing for these countries. Undoubtedly, this income contributes to the reduction of poverty in these nations. But the mass exit of highly-qualified citizens presents a complex dilemma for many poor countries.

World Bank studies indicate that the incomes of families with members who have emigrated abroad are higher than those of families without emigrants, that remittances reduce poverty and increase expenditures on education, health, and investments among these families. In Mexico, the greater the proportion of households with emigrants from a region, the more positive is the effect of the increase of remittances on rural poverty. In Guatemala, remittances

67 Available at: http://tuning.unideusto.org/tuningal/index.php?option=com_docman&Itemid=191&task=view_category&catid=22&order=dmdate_published&casdesc=DESC

68 Beneitone, P. Universidad de La Sabana, Bogotá, 2008.

69 World Bank figures in “Perspectivas de la economía mundial 2006”.

reduce the level, degree, and seriousness of poverty, given that remittances represent more than one-half of the income of the 10% poorest families.

The majority of emigrants to Europe come from Africa and the Middle East, while the major migratory flows toward the United States are from Mexico, Central America, and the Caribbean. The latter might indicate that for potential emigrants it is important to be from near the country to which they migrate, especially for the poor and untrained, since it is cheaper to emigrate to a nearby country than to a more distant one. Moreover, the development of emigrant networks in the country of arrival encourages migration because these networks reduce the cost of migration even more, and provide the necessary contacts to find employment.

Here, we focus on the migration of persons with high training, and although this does not correspond to mass migrations, but to selective ones, it is qualifiedly important because it refers to the endogenous capacity of national and regional talent for the generation and application of knowledge in contemporary society.

One of the major difficulties to approaching this very important subject is the scant information available from systematic studies in different countries on the flow of persons with high levels of training, and on the impact that this flow has on the potential of a country to take advantage of scientific and technological developments in social processes and in innovation capacity, and to add value to productive processes.

This document has referred indistinctly to the “brain drain”, “migration of talent”, “science Diaspora”, or “scientific nomadism” – terms that occur in the literature in this regard, while recognizing that the most common name is “brain drain”.

The emigration of trained workers affects most of the countries of the world, including the European Union, and principally benefits the United States. Approximately 400,000 scientists born in Europe reside in the USA, and 70% of Europeans who complete their doctorates in the United States choose to remain and reside in that country.

The situation of the poor countries is even more critical, and surely the numbers are higher. It is estimated that nearly a million people with high levels of training who live and work in developed countries come from the 50 poorest countries. “This represents an intellectual exodus of 15%, since in these poorest countries some 6.6 million people have a Higher Education. There are countries, however, in which the proportion may reach 50% of professionals with university training.”⁷⁰

Merely to give a small example, due to emigration Asian countries lose between 5% and 15% of their human talent. Iran has 25% of its graduates abroad. Some 70% of Peruvians who finish their doctorates in the United States plan to stay in that country.

3.5. Migration in Latin America and the Caribbean

There are great difficulties in presenting statistics on migration in LA&C. The collection of comparable data between countries is difficult due to disparities in collection processes. For example, data capture is carried out on different dates, do not include some categories of migration, the definition of migration is not uniform, etc. Moreover, one should mention illegal migrations as a factor that also contributes to the unreliable statistical information available.

World Bank data show a massive exodus of professionals from some of the countries with

70 Pampillón, R.

incomes that are among the lowest in the world. Eight of every ten Haitians and Jamaicans with university degrees live outside their countries. In Sierra Leon and in Ghana, the relation is five of ten. Many countries in Central America and in Africa south of the Sahara, as well as some Caribbean and Pacific island nations have professional emigration rates exceeding 50%.

The following table presents emigration rates of trained people from various countries:

Table 1
Emigration rates of specialized persons

Country	Emigration rates of specialized persons (%)
Guyana	89.0
Jamaica	85.1
Haiti	83.6
Surinam	47.9
Ghana	46.9
Mozambique	45.1
Kenya	38.4
Laos	37.4
Uganda	35.6
El Salvador	31.0
Sri Lanka	29.7
Nicaragua	29.6

Source: World Bank -OECD.

The 1999 United States census shows that 1,559,000 (12,5%) of university professionals in that country are foreigners, and of these, nearly 10% (212,400) are from LA&C. PhDs represent 25.7% of the foreign professional resident population of the country; 14.8% have a master's degree, and 8% a professional degree, while 10.5% have a university degree. The United States has almost one million full-time researchers, while the total number for LA&C is less than 150,000 researchers.

The massive brain drain from Latin American and Caribbean countries presents complex challenges that it is necessary to understand adequately and completely in order to be able to present proposals for avoiding a Diaspora of human talent.

The other side of the coin of the "brain drain" that afflicts our countries is the "brain gain" for the receiving countries. However, the brain drain does not always result in a gain in destination countries because frequently, trained emigrants in the United States do not find employment adjusted to their levels of education. Those who have studied this phenomenon explain it as due both to differential in the quality of education as well as it being a "brain waste" due to difficulties that emigrants have in obtaining the licenses necessary for the exercise of some professions.

However, not all emigrant talent is "wasted". A review of the contributions made by trained emigrants and students in the United States calculates that an increase of 10% in the number of foreign students with university degrees raises the number of patent requests in the country by 4.7%, patents with a university origin by 5.3% and non-university patent requests by 6.7%.

There are a number of factors that need to be analyzed in order to explain the phenomenon

of migrations from poorer to more developed countries. Among these, there is no doubt that economic factors have a significant weight among emigrant motivations.

The following table presents the development of comparative national incomes per capita of countries of the region and developed countries. The results are obvious: while in LA&C the annual average in the year 2000 was US\$7,030, in Europe it was US\$20,393, and in other OECD countries it was US\$22,931.

Table 2
GDP per capita between countries of Latin America and the Caribbean
compared with that of developed countries

	First phase of globalization, in times of massive migration			1950	First phase of globalization, restricted migration			2000
	1820	1870	1913		1973	1990	1998	
Europe								
Italy	1 117	1 499	2 564	3 502	10 643	16 320	17 759	19 223
Spain	1 063	1 376	2 255	2 387	8 739	12 210	14 227	17 392
Portugal	963	997	1 244	2 069	7 343	10 852	12 929	15 295
Norway	1 104	1 432	2 501	5 463	11 246	18 470	23 660	29 523
Sweden	1 198	1 664	3 096	6 738	13 493	17 680	18 685	20 532
Average	1 089	1 394	2 332	4 032	10 293	15 106	17 452	20 393
Latin America								
Argentina		1 311	3 797	4 987	7 973	6 512	9 219	8 645
Brazil	646	713	811	1 672	3 882	4 924	5 459	5 594
Chile			2 653	3 821	5 093	6 401	9 756	9 957
Colombia			1 236	2 153	3 499	4 822	5 317	5 044
Mexico	759	674	1 732	2 365	4 845	6 097	6 655	7 087
Peru			1 037	2 263	3 952	2 955	3 666	3 684
Uruguay		2 005	3 309	4 660	4 975	6 473	8 314	7 790
Venezuela		569	1 104	7 462	10 625	8 313	8 965	8 440
Average	703	1 054	1 960	3 673	5 606	5 812	7 169	7 030
Others countries of the Organization for Economics Cooperation and Development (OECD)								
Australia	517	3 645	5 715	7 493	12 759	17 043	20 390	22 461
Canada	893	1 695	4 447	7 437	13 838	18 933	20 559	23 682
New Zealand	400	2 704	5 152	8 453	12 513	13 825	14 779	16 068
United States	1 257	2 445	5 301	9 561	16 689	23 214	27 331	29 512
Average	767	2 622	5 154	8 236	13 950	18 254	20 765	22 931

Source: Maddison (2001) and FMI (several years).

° Adjusted by the parity of purchasing power.

Other factors considered by the literature on the subject that are directly related to the flow of highly-qualified human talent toward the wealthier countries have to do with the weak science and technology systems of the majority of the countries of the region which limit the possibilities of applying their skills in their countries of origin due to the low demand for scientists in the respective labour markets. National spending on research and development in the region is only an average of 1%, while in the United States it is on the order of 70-80%, the European Union 28%, and in Japan approximately 15%.

Other indicators of science, technology, and innovation (ST&I) show that the weight of LA&C represents only 1.4% of scientific world production, and 0.2% of patent requests.

Political cycles also determine migratory flows. The periods of great political disturbances within countries are characterized as times of expulsion of academic-scientific and professional populations in general.

During the first years of the XX century, migrations of talent from developing to developed countries were associated with processes of professional training that sought to solve local

problems through the transfer of knowledge and technology. During this phase, international scientific cooperation played a very important role.

In summary, the following are some of the principal causes of the professional migration that affects the region: the absence of definitions of science policies in most countries of the region, being translated into weak systems of science, technology, and innovation: the almost nonexistent regional policy of doctoral training: the incipient development of the industrial sector, with little innovation and disconnected from the scientific-technological system, and therefore with little capacity to absorb local scientific products: the lack of definition of national or regional priorities for human resource training; the slow up-dating of policies of international scientific cooperation; the lack of economic incentives for developing scientific activities; and the large political and social disturbances suffered by the countries of the region.

The migration of human talent in countries of the region generates an impact that can be considered from the perspective of sustainable development. It is known that the productive efforts of talent are in direct relation, on the one hand, to the innovation and production capacities of different sectors of the economy, thus bringing greater economic growth and well-being to society. On the other hand, they also positively influence the quality of social services that a society receives, which translates into higher living standards.

In order to show the impact of the brain drain, we present the following table of Solimano that summarizes the effects that this migration has on both sending and receiving countries:

Table 3
Economic effects of qualified labour

Areas / Type of talent	Impacts on country of origin	Impacts on receiving country
1. Science and technology (scientists and technicians)	-Initially, development of science and productivity may fall. -Comparative advantage patterns may change. -Emigrants who return bring new knowledge, skills, and contacts.	-Increase in human resources for the development of science and productivity. -Comparative advantages in highly technical sectors may be strengthened.
2. Health professionals (physicians, odontologists, nurses, health sector workers)	-The health sectors is effected by emigration of particularly scarce specialized human resources -The quality of services rendered may fall	-The health sector benefits by the entry of specialized human resources from abroad
3. Business people and innovators	-May decrease the creation of business -Tax revenues are affected. -Emigrants who return to their countries may create businesses in advanced technology sectors	-Business creation may increase due to the immigration of business people. -Tax revenues may increase
4. Professionals in international organizations	-Affects the availability of professionals for the design of public policies and the governmental sector	-The most important international organizations are located in developed countries
5. Students and small and medium business people	-Reduction of the capacity to acquire new knowledge -Reduction of the size of the middle class	-Importation of "useful talent" for the sciences, technology, and other areas. -Development of new business
6. Cultural talent (artists, writers, actors)	-Influence on local literature and art. -Affects cultural identity	-Increase of cultural diversity.

Source: Solimano (2006).

As a consequence of the brain drain, the countries of Latin America and the Caribbean have 146,000 researchers, representing only 3.5% of the total scientists on the planet – a value below the world average. In comparison with some countries, Latin America and the Caribbean have three times fewer researchers than Japan, six times less than the United States, one quarter of the research and development personnel of Europe, and four times fewer than China. The United States and Canada alone have 25% of the world's researchers.

A study carried out by the Latin American Demography Centre (CELADE) shows that the migration of highly trained persons represents for the region a very significant loss of knowledge. The study shows that between 1961 and 1983, 700,000 professionals and highly qualified persons emigrated from Latin America and the Caribbean to the United States, Canada, and the United Kingdom. This figure is more than four times the total number of scientists who work full-time in the countries of LA&C. If in the following years this trend continued, according to Lema, "... one can calculate that more than 1,200,000 highly trained persons of the region emigrated to these three countries between 1961 and 2002. Estimating that the minimum cost of university training in the region is \$25,000 dollars, the migration of professionals during the last 41 years cost the countries of Latin America and the Caribbean more than 30 billion dollars."⁷¹

But beyond monetary concerns, the loss for the countries of the region is incalculable in the face of the developed countries that are the beneficiaries of the social and personal investment of the almost 25 years required to train each of the talents that emigrated. Moreover, it affects the capacity for the generation and productive utilization of knowledge.

In an effort to prevent the migration of highly-qualified human talent, different strategies have been adopted by countries of the region. Some of them formulated regulatory policies the principal strategies of which included establishing quotas for studies abroad and sanctions for those who did not return. The results did not meet expectations in terms of avoiding the migration of talent, since individuals continued to follow paths to the world's great centres of scientific attraction. Very few countries strengthened policies in terms of the organization and consolidation of innovation systems with significant stimuli for national scientists, and in this way achieve their permanence in the respective country.

On the other hand, there is also a concern to bring back highly-trained professionals to their countries of origin. Such policies are generally very costly and difficult to sustain. More recently, significant efforts have been made to link scientists residing abroad with those in-country.

Scientists and academics who emigrate represent a strategic good for their countries of origin, and are part of a critical mass. It is necessary to stop the flow of the exodus of scientists, reconnecting local communities through the design of policies and strategies that make them feel a part of an institutional, national, or regional project that creates conditions for innovation and participation, re-designing their social role.⁷²

In this regard, we present a very complete summary of the experience and history of various countries in the region in establishing and strengthening links between talented individuals abroad and those still at home:

71 Lema, F. "La construcción de la sociedad del conocimiento en América Latina. La diáspora del conocimiento"

72 Beneitone, Pablo. *Op cit.*

Strategies for re-linking scientific emigrants to projects in their countries of origin have appeared recently in the non-governmental area through self-governing processes of the scientific exodus that are favoured by an increase in the international circulation of ideas and persons, and the need to increase the multi-disciplinary aspects of scientific programs.

The first organized contacts between expatriate scientific communities began through an experience carried out in India with the support of UNTAD for a program of visiting scientists that has been financed since 1977. The same decade witnessed the emergence of the TOKTEN (Transfer of Knowledge Through Expatriate Nationals) program of the UNDP (United Nations Development Program). The purpose is to facilitate the transfer of specialists to countries in which the language and culture facilitate their immediate involvement. For various reasons, including the lack of endogenous development able to generate technological poles of attraction in less-developed countries that capture these resources, and the lack of familiarity with the UNDP program on the part of expatriate scientific communities, these experiences were scantily disseminated and their effect lacked significance for the development of most national science systems (TOKTEN, 1994).

Although there have been previous limited and transitory experiences, only recently in the 1980s did expatriate scientific communities begin to organize themselves and to establish contacts with their national counterparts through the creation of non-profit associations.

The return of constitutional legality in Argentina (1983) encourage among expatriate scientific communities resident in France and the United States the organization of meetings that resulted in associations. The Argentine government also expressed its interest in this phenomenon, organizing in CONICET a database of Argentine scientists resident abroad. The Argentine scientific community itself, associated with national parliamentary groups, organized a meeting in Buenos Aires in 1985 in order to analyse the effects of the dispersion of scientists, and to study re-linking mechanisms. Subsequently, the Argentine government organized PROCITEX, a program based on a re-linking policy, but particularly one of repatriation for Argentine scientists.

In 1999, by the initiative of the government of the city of Buenos Aires, the Universidad de Buenos Aires, and the UNESCO Inter-Regional Network of Scientists of Latin America and the Caribbean Program a program called cre@r. This is a structure for generating data bases of emigrant Argentine professionals living abroad and of urban needs for technical cooperation. In the year 2000, a similar program, RAICES, was created within the Department of Science, Technology, and Productive Innovation of the Republic of Argentina, the working methods of which are similar to those of cre@r, but at the national level.

In 1985, Uruguayan emigrant scientists organized in Paris an association called AFUDEST that collaborated broadly with university and governmental authorities and the scientific community of Uruguay in order to develop re-linking and endogenous development activities of the science and technology system.

The experience of AFUDEST, transmitted to other Latin American scientists, fostered the creation of other groupings in France (*Association Latinoaméricaine de Scientifiques*, ALAS) in the 1990s. In light of the ALAS proposal, in 1991 UNESCO created the Data Base Project of Scientists of Latin America and the Caribbean, with the support of the ambassadors of the region, and in 1994, the Inter-Regional Network of Scientists of Latin America and the Caribbean. This program carries out scientific research activities in different countries of the region for dissemination and training in science and technology.

In 1991, Colombia officially established the Caldas Network of Colombian Engineers resident abroad, and organized exchange and training activities with the Colombian Diaspora. In 1996, the TALVEN program was created at the initiative of the Venezuelan Delegation to UNESCO, with the initial purpose of re-linking Venezuelan scientists with the country of origin.

In 200, through the initiative of the Ministry of Foreign Relations of France, and with the support of the European Union, the World Bank, the Organization of Economic Cooperation and Development (OECD), the United Nations Development Program (UNPD), the Swiss Commission for Scientific Cooperation with Developing Countries, the ministries of labour and solidarity, of youth, national education, and investigation, the Academy of Sciences, the Economic and Social Council, the High Commission for International Cooperation, The Association of Francophone Universities of the French Republic, and the Development Research Institute (IRD), an international committee of specialists was organized in order to study mechanisms for recognizing the value of communities of researchers and engineers of developing countries resident in developed countries. One of the major objectives of this effort was to collect and analyze available information on scientific and technological “diasporas” and to study forms under which public policies could foster cooperative activities of these organizations with developing countries. The interest displayed by the participating institutions in searching for new forms of participation of emigrant scientists and technicians in cooperation with their countries of origin marked the opening of a new phase in the recognition of the problem posed in the construction of the knowledge society by specialized migrations.⁷³

The governments of poor countries should attempt to retain their qualified professionals by offering them better employment and career possibilities, and should also encourage the return of emigrants in order for them to contribute to the economic growth and improvements of knowledge in these countries. In this sense, governments should take advantage of the phenomenon of globalization which makes it possible for the best-trained scientists and specialists to acquire greater virtual mobility and therefore require less physical mobility. Today, it is no longer absolutely necessary for professionals to go from one country to another in order to acquire better paid work. The new technologies permit one to work for the United States or for a country in the European Union from home. An indispensable condition for this is to have the appropriate telecommunications infrastructure to be able to work at a distance. Governments must define clear policies in this regard.

73 *Op. cit.*

Meanwhile, the phenomenon of “dislocation” means that many multinationals enter in developing countries, creating more opportunities for local brain-power. The governments of these countries should realise that fostering foreign investment is another way of attracting the trained resources that has gone abroad, and to retain those who are still in the country. The migration of scientists from Latin America and the Caribbean to developed countries can have serious consequences, since the work of these qualified professionals is a requisite for modernizing the structures of production, as well as for improving the quality of social services that the population receives, especially in health and education.

4. The role of IESALC-UNESCO in the integration of Higher Education in Latin America and the Caribbean

For a better understanding of the task of IESALC-UNESCO in the region, it is worth while reviewing the activities being carried out by UNESCO, many of which, such as follow-up world meetings (the World Conference on Higher Education in 1998 and Paris+5 in 2003) and those preparatory to the next summit (Paris+10)⁷⁴.

It should be remembered that the World Conference, in the final chapter of the document entitled, “*Framework of Priority Action for Change in the Development of Higher Education*” called upon UNESCO to take an active role in coordinating the work of the states, institutions, and agencies that are part of this process, and to monitor progress achieved and pending goals in regard to fulfilling the Declaration and Framework of Priority Action.

In the following programs one notes a strong presence and interest for the GATS:

- *UNESCO/NGO Collective Consultation on Higher Education* is a consultative committee established in 1998 with the participation of 60 organizations that represent various areas of the community related to Higher Education.
- *Forum on Higher Education, Research, and Knowledge*, is an open forum for intellectual exchange
- *The Global University Network for Innovation (GUNI)* was created in 1999 in Paris by UNESCO, the United Nations University, and the Universidad Politécnic de Cataluña, within the framework of the UNITWIN/UNESCO Chairs Program⁷⁵. Among its activities are the University Observatory and Social Commitment.
- *The Global Forum on Guaranteeing International Quality, Accreditation, and Recognition of Studies*, is a meeting place for different international frameworks on these subjects, and was launched as a reaction to growing demands of the international community which requested UNESCO to take a more active role in regard to the impact of globalization on Higher Education, particularly within the perspective of the liberalization in the trade of educational services through GATS.⁷⁶

⁷⁴ A description of the progress of actions and programs may be consulted at www.unesco.org

⁷⁵ The UNITWIN (University Twinning and Networking) networks and the UNESCO Chairs were conceived as a way to aid in developing training and research programs through the construction of university networks and by strengthening cooperation through the transfer of knowledge beyond frontiers. Since it was created in 1992, the program has provoked great interest among member states. Currently, there are 618 UNESCO Chairs and 67 UNITWIN networks involving 740 institutions in 125 countries. These chairs and networks cover 780 disciplines and may be consulted on the UNESCO web page.

⁷⁶ In the conclusions of the “Paris + 5” meeting, the recommendations expressed for this forum referred to the review and up-dating of regional study recognition conferences and the relation of these advances at the national level in regard to educational commerce.

In the area of international cooperation, it deserves special mention due to the key relevance of the theme of accreditation and assessment of the quality of Higher Education in the XX century, and in consequence of the creation of national agencies and international accreditation networks such as the Ibero-American Network for the Accreditation of Quality Higher Education (RIACES) and the Central American System of Assessment and Accreditation of Higher Education (SICEVAES), as well as various forums that cooperate and interact in order to agree upon dimensions and criteria that make it possible to define quality education.

In this sense, UNESCO, within the framework of the *Global Forum on Guaranteeing the International Quality, Accreditation, and Recognition of Studies* has developed an action plan, and together with the Organization for Economic Cooperation and Development (OECD) published the document “*Guidelines for the Quality of Cross-Border Higher Education*” (Paris, 2006), the principal objectives of which are: to assure the transparency of qualifications in order to increase their international validity; to support the development of effective recognition procedures; and to support international cooperation between national accreditation agencies. The guidelines seek to provide to the various interested actors in Higher Education some recommendations, parameters, and guidance.

In this way, and in regard to fostering quality, UNESCO has played an outstanding role in the strengthening, review, and up-dating of *regional agreements on the recognition of studies*⁷⁷. It is understood that putting these agreements into practice can provide an international framework for qualifications, fostering joint efforts able to overcome the obstacles to beyond frontiers mobility and to promote a “non-profit trade” of internationalization and to the benefit of students.

In summary, platform of the programs and projects fostered by UNESCO during this last decade, and which will certainly be part of the subject matter of the II World Conference on Higher Education, embrace: the quality of Higher Education; the consolidation of regional agreements for the recognition of degrees and competencies; the strengthening of networks and stimulus of promoting international cooperation; and the definition of policies for fostering knowledge, science, and technology of the highest levels. IESALC-UNESCO is also an excellent platform for bringing together other multi-lateral organizations that can play an important role in the integration of Higher Education of Latin America and the Caribbean.

- On the *international intergovernmental plain*: the World Bank, the WTO, the Organization for Economic Cooperation and Development (OECD), the United Nations Development Program Program (UNDP).
- *Intergovernmental interregional*: European Commission
- *Intergovernmental regional*: Organization of American States (OAS), IESALC-UNESCO, Inter-American Development Bank (IBD).
- *Bilateral Governmental Agencies*: Spanish International Cooperation Agency (AECI), Japan International Cooperation Agency (JICA), Canadian International Development Agency (CIDA), among various others.
- *Inter-regional level*: of particular note are the Organization of Ibero-American States (OEI) and the Andrés Bello Agreement (CAB).

⁷⁷ Following these guidelines in recent years, a series of meetings have taken place between countries belonging to common blocks or participants in particular regional agreements that have stimulated the up-dating of agreements and the signing of new ones that treat the recognition of studies, degrees, and diplomas between countries. Most of the conventions, including those in Latin America, the Convention of Arab Countries, and the “Arusha Convention” of the African countries, date from the 1970s and 1980s, and have not been successful in their applications, with the exception of the European Convention (Lisbon, 19978) which is more recent.

If these organizations would unite in order to support the building of the desired scenario of Higher Education in Latin America and the Caribbean, undoubtedly this would make possible the synergy not existing at the current time in which each party acts according to its own policies, and its own interests, thus producing a duplication of effort, the use of scarce resources in actions, projects, and programs of smaller scale which are often in conflict with other initiatives already under development.

4.1. The recognition of institutional university networks in Latin America and the Caribbean in the activities of IESALC-UNESCO

IESALC-UNESCO has continued to cooperate with the development of institutional university networks of Latin America and the Caribbean through fostering and supporting particular initiatives of national, sub-regional, and local character that are part of its programs or projects.

At the Second Regional Meeting of University Networks and Councils of Rectors of Latin America and the Caribbean, these networks were seen as scenarios for international cooperation and for the articulation of specific capacities for the promotion and implantation of integration processes of Higher Education in Latin America and the Caribbean

On that occasion it was stated: that in this perspective of developing new meanings for international cooperation, built upon trust and mutual benefit, there is a need for the establishment of an active and participatory platform that can guarantee the consolidation and expansion of explicit policies that grant priority to the logic of association and complementarity between institutions of Higher Education. In order for this to be accomplished, of key importance are the trends toward the establishment of regional and sub-regional networks based on inter-institutional or inter-governmental agreements, facilitating a new systemic scenario that purposely aids in the development of processes of economic, political, social, educational, and cultural integration required by the development of countries of the continent.

In order to define the scope of university networks, we present excerpts from the interview with the Director of IESALC-UNESCO, Ana Lúcia Gazzola, presented in the IESALC-UNESCO Bulletin of August, 2007⁷⁸.

In terms of the role that IESALC-UNESCO should play in the construction and progress of associations and consortiums between educational institutions, she stated that:

for all of us who work in an academic, educational, and university environment, it has become clear that the best way to proceed is through the creation of networks. Each of our educational systems and institutions has strengths and weaknesses. It is necessary to join forces so that we can, together, overcome the weaknesses. We must work cooperatively and with solidarity in associations and consortiums, seeking to build that which alone, no one can accomplish.

The fundamental mission of IESALC-UNESCO is to become a network of networks; to be an associative policy forum in which all networks and rector's councils have a venue for fashioning a common agenda that allows us to identify our

78 Cordera Campos, R (2007, agosto 7). Una Educación Superior, igual para todos: [Interview with Ana Lúcia Gazzola, Director of UNESCO-IESALC] Noticias de Educación Superior en América Latina y el Caribe Correo del Sur, La Jornada Morelos. Mexico .

possibilities and to work in this direction. The legitimacy of IESALC-UNESCO is based precisely on strengthening this regional block through which one can engage in dialogue and join with other blocks.

As for the role played by networks and university organizations in the present and in the future, she stated that:

the university can be thought of as a cooperative entity based on solidarity, since the production and transmission of knowledge, the relation between teachers and students, the links between colleagues and research groups; that is, all academic activity is carried out on an associative basis. In other words universities have a natural tendency to organize themselves into networks. This is part of our university ethos, and the way universities have operated and acted throughout history.

University networks and organizations in Latin America and the Caribbean have a key role in strengthening our institutions. Through them, it will be possible to fashion a common agenda, to create venues for academic and institutional cooperation, and to expand quality education in our countries in an inclusive and equitable manner. In sum, university networks and organizations represent the best instrument for carrying out the changes necessary in order to construct a better future.

IESALC-UNESCO demonstrates that it is aware of its role in integration and acts accordingly.

5. Proposals

The countries of Latin America and the Caribbean need to take advantage of the historic opportunity to become a region imbued with a single identity within diversity.

We may assert that a positive scenario exists for consolidating effective international university cooperation. We have countries that are integrated into regional blocks, with active university networks and associations and with international frameworks such as ALCUE and the recently-created EIC.

Currently, and increasingly in the future, international cooperation responds to a need in that no academic association can subsist alone. Thus the consensus regarding forging such cooperation as an integral part of the institutional missions of universities and of Higher Education systems.

Therefore, Higher Education in the region should make a maximum effort to achieve true and profound educational, scientific, and cultural integration of the countries of Latin America and the Caribbean. The establishment of a *Latin American and Caribbean Higher Education Area* does not necessarily bring with it the disappearance of sub-regional areas; on the contrary, these inter-university links and relations, both national and sub-regional, can be utilized in order to reach the objective proposed, and to achieve a better integration of Latin America and the Caribbean with other world regions. "The major progress of a well-understood and more mature internationalization and cooperation based on more solidarity will, in different scenarios of dialogue, cooperation, and negotiation, make it possible to arrive at a more autonomous and Latin American position in regard to integration and social develop-

ment”⁷⁹

Governments need to make a significant and coordinated effort in order to resolve specific questions such as regulation of the trans-national sector, the assurance of quality in educational services, the improvement of mechanisms for the recognition of degrees, improving mobility, and take measures to stimulate the retention of qualified persons and to mitigate their flight.

For their part, universities can, and should contribute to integration, reaping the benefits of fraternal collaboration, strengthening collective awareness, modernizing their social function, deepening the consolidation of citizenship and of democracy, and within the framework of true cooperation rather than of individual competition and mercantile negotiation.

It is our conviction that the development and well-being of persons and of peoples cannot depend on their belonging to one country or another, to one race or another, of having some particular physical and cultural characteristics, and not others. Consequently, one of the priority tasks of universities should be to foster a genuine internationalization and cooperative solidarity able to reduce the illicit and inexcusable gap that exists between nations and, most importantly, between human beings.

5.1. Proposals for future actions and desirable scenarios

The new millennium calls for the creation and strengthening of large geopolitical areas that bring together economic, social, cultural, educational, defence, and security concerns. Within this context, what is undeniable is that, in spite of being the most unequal region of the planet, the extent to which Latin America will attain the status of an independent interlocutor will depend on the success achieved in regional integration processes leading to a region-state in the world system, and where there prevails true international cooperation.

Higher Education plays a key role as an essential component for growth and competition, especially now when countries face the need to incorporate themselves into a global economy based on the intensive use of knowledge.

Universities and Higher Education systems should assume leadership and foster international cooperation as a way to face these challenges. The focus should be to meet the demand for the development of the human skills of our students, since it is these skills that can benefit our economies.

The development of solidarity-based cooperation programs among similar institutions in the developing world and poorer regions can facilitate mutual understanding and contribute to the effort of maintaining education as a public good and social responsibility with high value for citizenship in the face of those who see it as a transferable, consumable and marketable good.

Moreover, the unpredictability of the future, aggravated by the lack of knowledge regarding the extent to which the international dimension in Latin America is heterogeneous or uniform, causes enormous difficulties in establishing criteria that could guide our planning. This should be countered by producing and making available reliable information in each of our countries.

The convergence and integration of Higher Education should be carried out together with the creation of a new university paradigm that confronts with pertinence and social responsibility the problems of exclusion and inequality. With or without commercial agreements,

⁷⁹ Uribe, J. *Op. Cit.*

Higher Education urgently requires a regulatory framework that is compatible with new world geography.

As a contribution to regional and national development, international cooperation should collaborate to constructing a world in which we can live together ethically, politically, and environmentally, while valuing and preserving our cultural diversity.

From the strategic perspectives of these initiatives, it should be understood that organic changes in Higher Education are vital, and within this scenario, IESALC-UNESCO should play a leading role in putting into place initiatives that stimulate and articulate regional and international cooperation in Latin America and the Caribbean.

5.2 Implementable guidelines, programs, and actions

- Bi-lateral and regional agendas: the region needs to design working agendas between the countries of Latin America and the Caribbean that facilitate the processes of solidarity-based internationalization of universities of the region, to increase efforts for the creation of a Latin American and Caribbean Education Area, foster processes for arriving at consensus using common referents for professional training in the countries of Latin America and the Caribbean in order to make our education systems transparent..
- **Human resources training in areas of international cooperation:** the training of specialized human resources in these matters is of vital importance, both in areas of government and in universities. These actors should be able to make up technical groups that have continuity, with medium and long-range action plans and with assigned budgets. Committed to a national and regional vision that designs projects from conception to implementation, with strategies that see international cooperation as a tool at the service of the institutions, and not as a something that can only capture external resources and administer study grants that produce benefits only for the developed countries.
- **Observatories of good practices:** to foster the participation of a larger number of institutions and specialists in order to enlarge focuses, diversify nuances, and implement stable consultation and agreement procedures while taking into account diversity and plurality. An existing structure exists in the *Latin American and Caribbean Higher Education Observatory* created by IESALC-UNESCO in 2001, and that contains national reports and thematic studies on various aspects of Higher Education.
- **Effective use of information and communication technologies (ICTs):** as a cross-cutting effect, this is contributing to the internationalization of education, making it possible to shorten distances, expand education beyond borders and education through networks, and to make possible new pedagogical practices. The importance of having available up-to-date and available information is an irrepressible trend, and that will be strengthened in Latin America. Therefore, one should increasingly take advantage of ICTs for exchange, dissemination, and cooperation, while not allowing them to increase the gap between those who have access and the so-called digital illiterates.
- **Agreements between governments and institutions:** these should be pro-active, and not be limited to signing ceremonies that later become dead letters. We need to counter this trend and to see such instruments as real tools that foster, guide, and assess international cooperation activities.

- **Agreements on the recognition of degrees:** update norms, create information collection centres, and effectively use international agreements such as the Andrés Bello Regional Recognition Agreement. Our institutions are extremely jealous of their prerogatives, and we must increase reciprocal trust and technical capacity in order to establish or legitimate study equivalencies at the national and intra-regional levels. This situation is one of the basic problems of those who today face initiatives for fostering mobility. This is a subject to be treated by governments, but also by institutions through the definition of basic course content and the organization of curricula, keeping in mind concepts such as competencies and credits. For the development of these themes, one should take advantage of the results of the Tuning America and the 6x4 projects.
- **Legislative reforms.** The energetic inclusion of these subjects is a debt that is pending on national agendas, university regulations, and in the allocation of a constant and stable budget. International cooperation has still not been incorporated as a substantive theme, but appears rather, as an annexed activity or as *ad hoc* policies, being far from constituting a true revolutionary component in strategies for improving Higher Education. One merely needs to look at the funds allocated to international cooperation activities by governments to note that they are nowhere near 1% of the budget. Neither are they usually a priority in universities.
- **Cooperative graduate programs:** are a good opportunity to consolidate scientific cooperation and mobility, making progress possible in areas in which individual effort is insufficient or difficult. Inevitably, academic work demands internationalization. No university can deal with all cutting-edge areas; they all must cooperate with others, stimulating and strengthening the academic association between graduate programs, reinforcing training activities, fostering the exchange of teachers and graduate students, seeking mutual recognition of credits obtained, and stimulating joint guidance of theses and eventual joint diplomas. The existence and development of local capabilities in science and technology are essential in order to diminish the widening gap between developed and developing countries. It is also important to train researchers based on an agreed upon agenda of priority themes for Latin America and the Caribbean.
- **International mobility of university students:** one of the most well-known facets of the internationalization of Higher Education, and including as a key theme in all of the areas mentioned. Although recent years have witnessed a wide variety of programs, fostered especially by university associations⁸⁰ and some by governments, it is still very reduced among the countries of the region⁸¹. Expanding and strengthening these programs requires seeking new financial alternatives such as the support of private firms and other actors, moving forward in the definition of cycles or subjects that permits students an exchange that offers a program of the same quality as that of the institution of origin, and that includes automatic validation of studies taken, and generating expanded interest in the choice of Latin American and Caribbean countries as possible destinations.

Another example of academic cooperation in graduate training is a project under development for several years by the Republic of Cuba through the Latin American School of Medical Sciences (ELAM) and the being developed by the International School of Sport and Physical

80 PIMA, CRISCOS, Macrouiversidades, ESCALA Estudiantil.

81 Nearly 140.000 students (UNESCO and OCDE) train abroad, and less than 15% do so in another Latin American country. Between 50% and 60% study in the United States. Most of the others study in four European countries: the United Kingdom, Spain, France, and Germany.

Education (EIEFD)⁸².

- **The attraction and reception of foreign students**⁸³: to date, few universities of the region have incorporated this activity as part of their institutional policies. Thus, the results are short-lived. However, trends indicate that Latin America will increasingly be a pole of attraction for students from other parts of the world as a result of political stability, the beauty of its landscapes, cultural attractions, more accessible tuition costs for study in degree courses, and interest in learning Spanish. These factors can be taken advantage of by countries.
- **Cooperation in teaching and in the certification of languages**: studies show that language is important cooperation as a meeting place for common elements for understanding between people. In the world today, more than 400 million people speak Spanish, and more than 200 million speak Portuguese. This means that 600 million people can speak to each other within the Ibero-American cultural area. In this sense, the example of the creation of International Certification System of Spanish as a Foreign Language (SICELE)⁸⁴, made it possible to unify criteria and methods of assessment for the granting of certificates of the mastery of Spanish as a second language for Spanish speakers, and established a common seal of quality. One should also note the decision by Brazil which has for several years establish Spanish as required subject in public and private secondary schools as a favourable step toward Latin American integration. The sentiment of confidence in our languages will undoubtedly strengthen their use in the world, and will result in increasing prestige for our education projects and our culture which is so varied and at the same time so shared.
- **Establishment of foreign institutions**: in most of countries, there are strong restrictions, but there are multiple varieties in regard to the establishment of university programs in alliance with local universities, or those that present courses on-line. This will be a trend that will continue to grow as a product of globalization, and one about which countries should review their normative frameworks and universities should review the modalities of cooperation that they establish with foreign institutions for the protection of citizens to guarantee access to quality offerings.
- **Strengthening regional accreditation and assessment networks**: these institutions should be able to establish criteria, indicators, and practices that are coherent with our social environment. Assessment has arrived to stay, and quality assurance is a measure that favours trust and exchange. In this perspective, it is relevant to discuss the contribution of accreditation processes to the flexibility of systems in transferring credits, in the average duration of courses, in the identification of basic skills, and components of the professional profiles of graduates.
- **Fostering UNITWIN Networks and UNESCO Chairs** as training and research programs, strengthening cooperation through the transfer of knowledge beyond borders.
- **Undertaking actions to counter the brain drain**: to date, the specific policies put into place in order to retain highly qualified talent in the region have been largely ineffective

82 ELAM is a scientific-pedagogical project that today receives students from 24 countries – 19 from Latin America, and 4 from Africa and the United States. Enrollment is near 10,000 students in different years of study, distributed into 21 schools of medicine in the country.

83 It is calculated that currently, around 2 million students are enrolled in foreign universities. Nearly 80% study in OECD countries, Currently, Latin America is barely competitive. Various studies show that the continent has less than 20,000 foreign students enrolled.

84 Last March, on the eve of the IV International Language Congress, the Instituto Cervantes and the rectors of major universities in Spain and Hispano-America ratified the International Certification System of Spanish as a Foreign Language.

and strongly conditioned by the international economic and political situation. Resolving the problem will depend upon the economic, scientific, and technological level of each country, and on a long-term strategy that will involve true regional scientific and technical cooperation, as well as with developed countries, through a fair negotiation of reciprocal interests. Such actions as: the establishment of contact networks of Latin American and Caribbean scientists who reside abroad, the so-called “return grants”, retention policies, and links with the productive sector should all be fostered and consolidated.

- **Stimulus and inter-connection of university networks and associations:** should deal with financing problems, lead to greater institution-to-institution and sector-to-sector cooperation. A positive step is to continue with the activities organized by IESALC-UNESCO on *Meetings of University Networks and Councils of Rectors of Latin America and the Caribbean*.
- **Financing policies as a cross-cutting factor:** we should recognize that many programs began through the attraction of outside incentives, stimulated by programs financed by international agencies. This entails opportunities not unduly influencing objectives, priorities, areas of action, and influence of these cooperation strategies. We need to seek our own resources, and to assume a more decided attitude within bi-lateral and multi-lateral plans in which resources are defined and the purposes of international cooperation stipulated in terms of Higher Education, fostering a process that is founded on the model of solidarity-based international cooperation.

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Chapter 7

HIGHER EDUCATION REFORMS: 25 PROPOSALS FOR HIGHER EDUCATION IN LATIN AMERICA AND THE CARIBBEAN

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** EDITORS' NOTE: the contributors' complete texts in their original version are included in the CD-ROM Trends in Higher Education in Latin America and the Caribbean. Contributions to the summary documents, attached to this volume, and can also be downloaded from the web site: www.iesalc.unesco.org.ve

The objective of this work is to contribute to the formulation of a proposal to be presented to the Ministers of Education of the countries of Latin America and the Caribbean at the next World Conference on Higher Education organized by UNESCO in Paris in 2009.

This document is based on a profound conviction regarding the central role of Higher Education in society and its interdependence with economic, cultural, and political factors.

From its beginnings, advanced education has been a irreplaceable element in the analysis of the universal principles of thought and in reflection on a changing and multiple reality, in the discovery of new perspectives on development and its key features, and in finding initiatives to take advantage of opportunities and to reverse the large number of problems related to the vast changes of the last millennium.

According to circumstances, some functions have taken precedence over others. For some years, Higher Education has been called upon to take a fuller role in economic processes.

Economic development is essential in order to reverse the state of poverty faced by vast numbers of people who suffer hunger and lack of hope, and in order for them to achieve a standard of living compatible with the most elemental human rights. The participation of Higher Education is fundamental for economic progress, particularly due to what takes place during a period of construction, dissemination, and generalization of an economic paradigm that is information and knowledge intense, but above all one that is universalist in nature, due to the scope of these new technologies in the organization of production and consumption.

These circumstances urge us more than ever to lend new value to the diversity of Higher Education. Unless one protects the structure and functions of the world's Higher Education systems, the social and cultural development promised by this new paradigm will be weakened. The current relevance of Higher Education in economic development and in the new knowledge society cannot deprive present and future generations of the legacy of other analytic and reflective sources in regard to the experiences of mankind.

As in other developing areas, Latin American Higher Education is essential for economic progress, but its greatest role lies in its future projection on the state of societies. Changing the paradigm presents the obvious danger of delaying progress, but it also represents an opportunity.

The experience of recent years indicates that important changes can come from a variety of strategies, as long as proper initiatives are taken to take advantage of the opportunity.

For this reason, of all of the possibilities and perspectives that one could choose in order to approach the role of Higher Education in Latin America, we have opted for those that allow us to present it within the perspective and in the light of the varied needs engendered by reconstruction of the economic apparatus in the region as a basis for its development, the capacity to understand, adopt, and adapt to the new technological standard and to significantly the quality of life of communities.

Good-will is essential. Available and sufficient financial resources are vital. But identifying courses of action is indispensable.

The proposal consists of 25 actions based on five strategic themes offered to the World Conference of Higher Education of UNESCO, in which representatives of numerous governments will discuss priorities for Higher Education for the second decade of the XXI century. The idea is to make a practical contribution coming from Latin America for world discussion.

1. Features of a transition

What the beginning of the century expresses most clearly is the transition between two styles of development and, at the same time, signs of the construction of a new mode of growth and the marked presence of Higher Education.

Diagnoses regarding the state of Higher Education in the first years of the new century confirm the prognoses in terms of the dynamism and transitions foreseen at the end of the XX century.

What was not expected were the development rates and changes attained by recent transformations of Higher Education in Latin America. In order to understand their magnitude, one should note that during the first years of this century enrolments exhibited an increase comparable to 80% of the growth between 1960 and 2000¹; enrolments increased by 11%; 47.5% of enrolments were in private institutions (nearly 3% more than in 2000), and the percentage of graduate students grew from 1.3% to 3.6%. Moreover, during these years 12 of the 20 assessment and accreditation agencies in the region were created, and in a novel occurrence a sustained growth began of trans-national education in all countries of the region, from 12% of enrolments in the Bahamas, 7.5% in Chile, to only 1% in Peru.

Although some of these transformations may be seen as a veritable shock to Higher Education systems in the region, or denote the non-existence of comprehensive and deep reforms in some themes of relevance, what the beginning of the century expresses more clearly is the transition between two styles of development and, at the same time, indications of the construction of a new model of growth and a marked presence of Higher Education.

The 90s

The '90s were a time of testing for universities in the region: “change, improve, and modernize” were the mottos through which vital reforms were designed and implemented. The urgency and inevitability of change were based on a general diagnosis – proposed by international agencies – that argued that young Latin American democracies, through their States, overspent and spent badly, thus creating continual deficits and expensive and inefficient management. Thus, the recommendation was in principle to reform the State as a whole – in both structure and functions – in order to use resources more rationally and provide better quality services.

Higher Education in general and universities in particular, were part of this compulsive State spending, and therefore were to change as well. Moreover, this same diagnosis focused on some problems peculiar to universities linked to their organization, management, and their relations with economic production and research. The concern about quality and efficiency

¹ The data presented in this report come from three basic sources: IESALC (2006) *Informe sobre la Educación Superior en América Latina y El Caribe 2000-2005*, CINDA (2007) *Educación superior en Iberoamérica - Informe 2007*, Boletines de la CEPAL.

were the two points most often mentioned in the diagnosis. The situation became more dramatic as enrolments continued to increase. Therefore, from both the external perspective – in regard to problems of the State itself and the advance of neoliberalism – and the internal one – problems of universities – change appeared to be inexorable in the years ahead.

The proposed changes

Since the 1960s, international financing agencies have expressed in various ways their interest in the development of social and educational programs. In particular, the World Bank from the time of its first investment in Tunis in 1963, has granted credits of nearly ten billion dollars in 375 projects carried out in more than 100 countries. Moreover, this organization has been a major producer of documents on education programs, presenting diagnoses, recommendations, summaries of experiences, analyses of changes in education systems, etc.

In 1996, the Education Group of the Department of Human Development of the World Bank began publishing a number of documents that analyzed the consequences and purposes of the re-structuring of education systems. “The major purpose of the series is to aid decision-makers.”² From this set of documents arose some of the major pillars upon which the organization based its suggestions: the problem of financing, with the recommendation of diversifying funding sources; reforming university management and government methods; the generation of stimuli to diversify the educational system, with new tertiary and private institutions; the development of assessment and accreditation systems in order to control quality; the need to link education more effectively and efficiently with the development of industry and of research.

UNESCO as well produced and stimulated the beginning of an education reform process in the region, although with significant differences from the World Bank. Supported by the idea of “equality of educational opportunity”, UNESCO, in contrast to so many other organizations, presents its proposals from a more social and human perspective of education, rather from a strictly economic one, only makes recommendations to member countries, and does not grant economic resources to carry out any project in particular, except those that the organization itself generates.³

However, its reading and its recommendations for changing the state of education in Latin America are along lines similar to those of the World Bank: use resources better, incorporate other sources of financing, improve managerial processes, move toward diversification of educational systems, stress the quality of teachers, programs of study, and institutional infrastructure; improve teaching and programs to achieve greater efficiency in the learning process; develop programs of research, and foster linkages between Higher Education and sustainable human development.

Application in Latin America

This set of reform projects arrived on the continent in various ways. The evident nature of the diagnoses and the perceived simplicity of how to solve the problems contrasted with the

2 Maldonado-Maldonado, A. y Rodríguez-Sabiote C. *Los organismos internacionales y la educación en México. El caso de la educación superior y el Banco Mundial (Foro Latinoamericano)*, Acta académica 30 (Mayo 2002). Academia Onefile. Thompson Gle, SECyT.

3 *Ibid.*

situation from which local governments – particularly in countries with large and complex education systems such as Argentina, Brazil, or Mexico – prepared to begin to make changes.

Moreover, although the recommendations were presented in a general character applicable to nearly any context, the beginning of education system reform in Latin America created, in some cases, situations not foreseen within the prescribed plans.

On the one hand, it became clear from the beginning that although Latin America was seen from outside as “one” region, its national education realities were in fact so different from one another that it was unlikely that the same set of measures could produce similar results. Besides these differences, there were others - the political and economic situation of each nation, with different traditions and with actors who reacted in different ways to carrying out change. While some rejected proposed changes them outright, others accepted them practically without criticism. It became clear that all education systems of the continent, in one way or another, needed to generate responses to international interpellation and pressure. Certainly, the possibility of moving toward a middle ground in regard to the models proposed by these agencies was a difficult alternative. The fall of true socialism, the predominance of neoliberalism, the fiscal crises of States, and therefore their needs for external financing, conditioned any more or less autonomous position.

From another perspective, the application of reforms created situations that were almost paradoxical. This was so in part because the reforms had been developed through the experiences of systems in Europe and on other continents, and in part because they were applied to very diverse contexts.

Beyond these peculiarities, we present below some of the reforms that were carried forward in almost all countries, as well as other changes also shared by most of the Latin American nations.

Deregulate through regulation

The general motto was to reduce the size of the State in order to foster deregulation. To the extent that the State would involve itself less in certain areas, this would make possible better use of resources and make it possible for civil society and/or the market to make decisions. In the case of education, this idea translated – paradoxically – in to the creation of regulating agencies and in the application of policies that demanded, in order to be put into place, consolidation and functioning of a pro-active initiative of the State. The contradiction was even more evident given that university systems in Latin America had been characterized precisely by their functioning with high degrees of academic, political, and administrative autonomy vis-à-vis the State. The greatest dependency, in the case of public universities, has been on the side of financing. Even in the cases of some governments that developed system planning activities – which involved a degree of conditioning for the functioning of universities – the change was notable, since the sense in which they developed these activities was transformed.

On the other hand, this process of deregulation through regulation was accompanied by putting into place territorial and functional decentralization processes. As a response to the expansion of enrolments, and continuing a process of growth begun in previous decades, during the 1990s new university institutions were created, some public and many other private. Functional decentralization involved transferring to individual universities attributions that

had before been exercised by the State. As Nicolás Betancur explains, “the specific prerogative most frequently involved in this process is the fixing of salaries of university teachers, a measure intended to be determined by each institution through a process of examination of titles and differentiation”⁴.

Under these circumstances, in general, would might consider that the new type of State intervention would take place through three combined and interlinked levels: if the promulgation of new laws and/or decrees to lend a new legal framework to education; the creation of organisms linked to university policy management, and more specifically to processes of assessment and accreditation; and the application of new criteria for the granting of funds and incentives to teachers and to the institutions; that is, greater control over how part of the resources destined for universities are used.

New laws for the university sector

IESALC-UNESCO has organized a series of studies – published in its web page⁵ – regarding the legislative position of Latin American countries. An analysis of these documents allows one to have an idea of how, during the 1990s, the changes coming from States were translated into a new normative *corpus*. In some cases, there was talk of constitutional reform – a chapter or section with articles treating Higher Education, and in other cases, besides possible constitutional changes, specific laws were sanctioned, and in some others only some legal instruments based on constitutional norms.

On the other hand, part of this *corpus* was the basis for the creation of various levels of management and control, and for putting into place the financing programs and incentives mentioned in the previous paragraph.

In most Latin American countries one may see how, throughout the 1990’s, States sought to transform Higher Education through various kinds of legal intervention. Certainly, there were some others that could not, for various reasons, foster reform mechanisms, and were only able to produce some legal documents of scant practical application.

Legal Reform

In **Argentina**, the constitutional reform of 1994, which contained some general declarations regarding education, was followed a year later with passage of the Higher Education Law, N° 24.521, which contained some novel provisions. First, this legislation was presented in order to regulate all of Higher Education, and not only universities. Moreover, it was seen as an instrument for not only ordering, but also transforming the entire system. Its articles touched on various areas: autonomy, the government and participation of groups of university officials and teachers, designation of teachers, university entry, financing, degree systems, the creation of managerial levels and coordination of the system, and private education, among others. Another novelty was the incorporation of a section on assessment and accreditation, and in regard to the latter, professional training.

Bolivia also began reforms of its Higher Education system as part of changes fostered by the State and at the constitutional level. The constitutional reform law, approved in 1994, in-

4 Betancur, N. (2007). Reformas de la Educación Superior en América Latina y el Caribe.

5 IESALC-UNESCO.Studies. Available at: www.iesalc.unesco.org.ve

cluded a specific section on Higher Education. Also during the same year a Higher Education reform was approved, in an attempt to regulate the system, apply assessment and accreditation mechanisms, regulate teacher promotion, financing, etc.

In **Chile**, changes in the legal framework took place somewhat earlier, in 1990 with passage of the General Education Act. It included the regulation and creation of universities, their recognition, the awarding of degrees, etc. The subjects of assessment and accreditation also occupied a central role, and became the responsibilities of the Higher Education Council, a body also created by the new law. After passage of the law, other legal instruments were incorporated in order to deal with particular issues.

Brazil passed a National Education Guidelines and Foundations Act in 1996 which included some measures for changing the education system as a whole. In its section referring to Higher Education, this law regulates, among other aspects, the application of mechanisms of assessment and accreditation of educational institutions and establishes the criteria that define the nature of universities, as well as the principles *así como los principios de su autonomía*. In this case, also the process of reform education was planned as a part of the modernization that wanted for the state.

The role of the **Mexican** State has been key in initiating the change process in education. The middle of the 1990s witnessed the beginning of the Education Modernization Program, which represented “a transition toward a new form of coordinating the Mexican Higher Education system. One notes the appearance of an assessing state that had a great influence on the internal life of universities.” In this case, assessment policy came to play a central role in guiding the process of change that had begun.

In the cases of **Ecuador** and **Paraguay**, the reforms fostered were not transformed into new legislation. The effects were a growth in the system in terms of the number of institutions and in their enrollment, but without a norm that could regulate or order them.

The creation of regulation entities

The creation of entities for developing the tasks of accreditation and assessment may well be one of the features shared by all Latin American education reforms during the 1990's. In this sense, it presents a paradigmatic case on how States sought to regulate the functioning of their education systems, controlling the “quality” of the service rendered. Moreover, the creation of such agencies and the application of assessment and accreditation processes were among the major recommendations of international organizations. Thirdly, these processes were begun by using the experiences being carried out in European countries as well. Probably, these factors explain why accreditation and assessment agencies were so resisted by university communities in various countries.

In spite of the fact that most of the above-mentioned laws expressly refer to respect for university autonomy, both assessment and accreditation were seen by many people in education as untoward encroachment on university autonomy. Moreover, it was assumed that States would use these processes in their decisions on allocation of funding. In this sense, both seem to be more related to the application of criteria de efficiency, and thus the link with international organizations, than to quality.

Whatever the case, the point is that the distinguishing feature with which States came to be identified was that of assessment. The “Assessment State” came to be the label to describe the

new role assigned to the State in regard to education. And this reflected what had happened in Europe in the 1980's in terms of the changes that Guy Neave and other writers depicted in the way the State had come to operate: "from the facilitator State to the intervening State, from the friendly State to the assessing State, from policies guided by social demands to policies based on budgetary possibilities".⁶

This is how Argentina, Brazil, Colombia, Cuba, Chile, Costa Rica, and Mexico began implementation of national assessment and accreditation systems: some emphasized the former, and others the latter. At the same time, each State granted a particular value to both.

Argentina created a National University Assessment and Accreditation Commission (CONEAU); Brazil, which already had a history of graduate accreditation, created its Program for Institutional Assessment of Brazilian Universities (PAIUB) in 1993, to which it added a National Course Examination in 1996 and in 1997 the assessment of the supply conditions of undergraduate programs. Chile created a National Higher Education Council (CSE).

In some cases, through time, assessment and accreditation policies have become important tools to regulate, for example, the indiscriminate creation of private institutions and in order to have greater State control over the quality of some courses in particular (for example, in Argentina where all private universities must be accredited by the State). In other cases, the results has had less impact on regulation of the system and has had more on the granting of funds, as occurred in Bolivia.

In most cases, however, assessment and accreditation policies strongly emphasized the issue of the quality of education, and much less the question of pertinence. Although not always the case, it is true that opting for quality and not for pertinence was a way of emphasizing the disassociation that Latin American universities have typically had with the area of employment and, more generally, the lack of dialogue between academic planning and national social, economic, and development policies. Seen from the employment side, there has been a tendency to explain the increase of unemployment of professionals in terms of economic variables, without considering the impact that the lack of planning policies and the pertinence of university courses. Countries have provided few responses to this issue. Honduras, for example, through its Autonomous University Act, has called attention to the need to coordinate efforts between these institutions and the area of employment. Thus, the law treats the up-dating of skills and knowledge according to the needs of communities in which universities function, and the establishment of employment grants that link students with the private sector. Only recently, in 2001, Venezuela implemented some mechanisms to foster greater contact between companies, future employers, and students and university graduates.⁷

Besides assessment and accreditation agencies, most countries have created multiple levels for the generation and control of information: statistics agencies, information systems, censuses, etc. This decision was not by chance. In part, the need to have reliable information on the state of Higher Education served not only to understand in greater depth the systems themselves; but also to have inputs available when it came time to design and implement other changes. This is not so say that before the 1990's education ministers and secretaries did not have quantitative information; but rather that with the processes of reform, these data assumed a key role.

6 Brunner, J. J. *Prometeo de visita en América Latina*. Available at: www.brunner.cl

7 De Lacerda Peixoto, M. *Reformas da educação superior na América Latina e Caribe. Inclusão, equidade, diversificação e diferenciação*.

Moreover, some countries created new agencies specifically to implement these changes and processes. The attempt to diminish the size of the State appeared to have the opposite effect: more bureaucratic managerial structures, more control processes, greater presence of the State in education. Beginning in the 1990's, for example, the following were created: the Secretariat for University Policies and the Council of Universities in Argentina; the Ministry of Higher Education in Venezuela; the National Council of Science and Technology together with the National Association of Universities and Institutions of Higher Education in Mexico; the Council for Authorization and Functioning of Universities in Peru; and the Secretariat of State, Science, and Technology in the Dominican Republic. Brazil, which already possessed a very complex administrative structure, added other levels and organizations in the 1990's as well, which in turn reproduced the combination of municipal, federal, public, and private jurisdictions characteristic of the Brazilian system⁸.

Competitive Funds

The granting of extraordinary funds to university teachers in order for them to carry out various projects has been a frequent practice not only in Latin America, but in many countries. Such additional resources have financed research, training, travel, publications, etc. Various agencies created in the 1950's were involved in the granting of funds. In Chile, the *Corporación de Fomento*, to which years later was added the National Commission for Scientific Research and Technology. In 1958, Argentina created the National Commission for Scientific Research and Technology. Brazil had a number of agencies, such as the Financing Agency for Studies and Projects (FIEP), created in 1965, and the National Science Development and Technology Fund in 1969. Venezuela and Colombia also have had research financing bodies. During the 1970's and 1980's, some of these agencies were combined. It was common for decisions on the granting of funds to be linked to organizations that were part of the teaching and administrative structures of the institutions themselves, combined with the time in service of the person requesting the funds, as well as other meritocratic criteria.

Within the reform framework begun in the 1990's, these funds continued to exist and to be granted, but through the use of different criteria, and managed by a new set of entities created for this purpose. All Latin American countries came to have their own financing agencies for research, science, and technology, each designed in a different manner, with different budgets and obtaining necessary funds through different sources.⁹ For example, Colombia has a National Science and Technology System and a National Science and Technology Council that work with government funds, with fiscal incentives, and with the support of the IBD. In Brazil, as we have mentioned, there are numerous levels, some dependent upon government funds and others on the private sector. However, in almost all countries of the region, most (and in some countries all) funds come from the State.

On the other hand, these changes modified for their part the norms used to make fund allocation decisions; on the one hand due to distrust of bureaucratic rules as the only criterion for making decisions on additional remunerations; on the other, because the granting of funds to teachers and researchers began to be planned based on the criteria of New Public Manage-

⁸ *Ibid.*

⁹ For details on the entities that were created in each country: Duriez González, Maribel. *El papel de la educación superior en la construcción del conocimiento.*

ment¹⁰. Thus, teacher incentives were transformed into a selective tool, seeking to break away from the profession-based tradition of Latin American universities and to place more emphasis on the creation of knowledge. However, funds were sometimes granted based on areas considered, for various reasons, to be of high priority, which meant the downgrading of other disciplines and salary differentials between teachers with similar career paths or hierarchies. This changed the functioning of academic. This changed the functioning of academic career paths, stimulated competition between academics, although not always in the best manner. In many cases, priority began to be given to the quantity of reports or activities carried out (advising thesis candidates, presentations, publications, etc.) rather than their quality or profundity.

States became a key player in the granting of funds, since it was they who had the funds to distribute, who established selection criteria, and who finally decided to whom the funds were to go. In any case, this State intervention has also been taken as an external condition for the development of knowledge and of academic activity.

Insufficient budgets in the face of increases in demand of higher level studies

Almost by definition, the financing of public university systems has been the responsibility of the State. The assumption was that this contribution had high and positive social returns – whether for training human resources, the development of research and of culture, with economic impact and the possibility of its effects spreading to all of society.

This conception of undifferentiated budgetary distribution¹¹ was placed in check in the beginning of the 1990's, with funds for education being cut along with generalized cuts in government spending, and because the idea that investments in education are recovered through the social benefits it produces came to be questioned, perhaps not so much as a definition it itself, but rather due to concrete experiences that had occurred. That is, universities did not function well and did not produce what they were expected to produce. In this sense, given that financing was the variable by means of which States could influence the definition of university policy and the functioning of the institutions, cutting funds or conditioning their allocation – as we mentioned in the case of teacher incentives – came to be the way to have greater control over universities.

However, the reforms did not assume that strict criteria for the distribution of funds would be synonymous with reducing the size of the system, but rather on the contrary; they considered that these stricter demands in state financing would require universities to have more efficient management in the use of their resources and to seek alternative sources of financing. In some cases, this opened the door for public Higher Education to charge tuition fees and for universities to sell their services in the market, to become linked with businesses, and at times with the State itself as a service provider. Finally, this led to an unsatisfied demand for Higher Education that, as resources permitted moved toward private education.

The first contradiction that appears when considering these changes in the management of university systems is that these policies and changes took place within a context of increasing demand for Higher Education.

In effect, the growth of enrolments in the region has been surprising¹².

10 Bentancur, N. *Op. cit.*

11 *Ibid.*

12 *La educación superior en Iberoamérica.* (2007). Informe del Centro Universitario de Desarrollo. 2007 (CID)

Consequently, with the growth in the number of institutions of Higher Education, which went from 75 in 1950 to a figure that varies depending upon what criteria one uses to define the concept of a university, but certainly easily goes beyond 1,500¹³. Of the total number, there is a notable difference between the growth of public and of private institutions. In the medium term, and according to the Report of Higher Education in Ibero-America, 2007¹⁴, carried out by the Inter-University Development Centre (CID), the number of public universities has remained well below the number of private institutions in almost all countries of the region.

The percentages of private enrolments confirm the trend in most countries. Except in Argentina and Uruguay, where they don't reach one-third, in the rest of the countries, the growth in the number of students has been absorbed by private institutions. In Brazil, Colombia, and Chile, enrolment in private institutions approaches 75% of total enrolment.

Growth of enrolments			
	1975	1995	2004
Argentina	579,736	1,054,145	2,026,735
Bolivia	49,850	154,040	346,056
Brazil	1,089,808	1,661,034	4,163,733
Chile	149,647	327,074	567,114
Colombia	176,098	576,540	1,112,574
Mexico	562,056	1,420,461	2,236,791
Uruguay	32,627	74,842	109,817
Venezuela	213,542	597,487	1,074,350

Country	Universities	
	Public	Private
Argentina	45	55
Bolivia	15	41
Brazil	86	190
Chile	16	48
Colombia	53	112
Mexico	615	1159
Peru	33	49
Uruguay	1	4
Venezuela	22	27

In part, this was the result foreseen by the reforms: to sustain the growth of student enrolment and in the number of institutions without involving more spending by the State – and to the extent possible to reduce them. What the reforms appeared not to think about in their

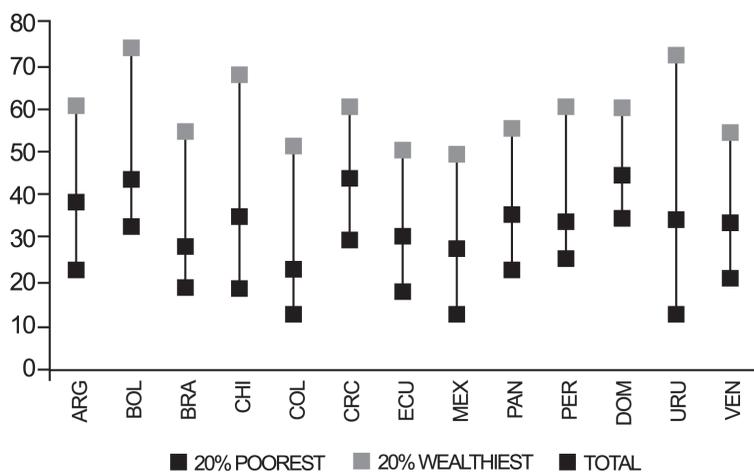
13 Fernández Lamarra, N. (2004). Hacia la convergencia de los sistemas de educación superior en América latina. Revista Iberoamericana de Educación. N° 35, mayo-agosto 2004.

14 The work of CID is based on national reports. This is a provisional table, since not all countries have up to date information, and not all necessarily use the same names for similar institutions.

recommendations was that Latin America has extremely high levels of inequality and exclusion in access to education. The progress of private education could not in any sense reduce this gap; on the contrary, its consolidation has increased the gap. Concretely, as is expressed in the above-mentioned CID report, “the sharp inequality in income distribution or in consumption is manifested in inequalities of school attendance by young people 13 to 19 years of age, according to their socio-economic origin.” This is combined with the variables of students being held back in grade and dropping out, which show a significant percentage of young people between 15 and 19 years of age do not enter the school system, or leave it before finishing secondary education. There are the data that influence the subsequent possibilities of entering the Higher Education system.

In this sense, insufficient public investments in education, the increased demand and progress of private education have increased the inequality gap in access to education that is characteristic of the continent. If a greater number of students and of institutions indicated a growth in the system, which could be understood in positive terms, the view is more discouraging if the system is seen from the point of view of inclusion and of equity. The following table¹⁵ shows attendance at educational institutions in urban areas by per capita household income quintile for the 20-24 year age group in approximately 2003¹⁶.

The difference between access for the poorest and the wealthiest reaches more than 40 points in countries such as Brazil and Bolivia.



System diversification and differentiation

Undoubtedly, the growth of enrolments and in the number of institutions complicated the state of education systems in Latin America and fostered greater heterogeneity in various senses: in the kinds of institutions, in the degrees and programs offered, in the modes of entry and exit, etc. This process of change was also accelerated and conditioned by changes proposed in reform programs. Institutional differentiation – stimulated by the expansion of new university and non-university institutions – and the diversification of financing – to be carried out through the introduction of new sources of financing not linked to the State – were key for

15 *La Educación Superior en Iberoamérica*. Op. Cit.

16 *Ibid.*

reform design and were proposed in a document of the World Bank in 1994, “Higher Education: the Lessons of Experience”.¹⁷

Both differentiation and diversification were seen to be perfectly justified from the perspective of those proposing reforms: in the first case, in order to modify the model upon which many Latin American universities – that is, a profile guided basically toward the teaching of the traditional professions. The change was necessary in that this kind of institution was not qualified to prepare neither in quantity nor in quality the kinds of professionals that the market needed. As Maria do Carmo Lacerda de Peixoto states, this model was seen by the World Bank as being excessively unified, expensive, and dependent on government and made unviable in the short and mid-term sustaining the model of Higher Education from both a theoretical and financial perspective.¹⁸

Thus, the explication of the need for diversification: if education provides comparative advantages for those who can enter it, then one may consider that the public good is question, particularly for Higher Education which, in many cases, came to be considered to be a semi-public good, or imperfect public that favours those who possess it more than the rest of society and, in this sense, could be seen as something negotiable in the market of exchange. Under this reasoning, there is no reason for the State to be the only, or the principal provider of Higher Education. This, in turn, opens the door to the expansion of educational enterprises supported economically by other actors. Both diversification and differentiation attempt to present themselves as ways to respond – in an almost paradoxical manner – to the problem of equity of access and of permanence: arguing that traditional universities linked to the more prestigious professions (medicine, law, etc.), being expensive to maintain, prevents budgets from being aimed at increasing the number of places offered to candidates. Together with this, it was also assumed that the creation of new institutions – even paid ones – would make it possible to offer more accessible courses and ones with a closer connection to the labour market. Of course, an unconscious ally of this policy was the pre-existing university structure itself, being extremely resistant to changes that could incorporate greater flexibility and novelty, both in curricula and in the degrees offered.

The expansion of private education

The expansion of private education has been part of institutional differentiation. Together with this, of note is the creation of a number of other tertiary institutions, or non-universities, most of these also in the private sector. These new institutions have created an endless number of new degrees and programs in order to respond to the growth and heterogeneity of demand. What became evident from the perspective of those fostering reform was that current university structures could handle neither the quantity of candidates nor the need to train new kinds of professionals. The new institutions, with more flexible structures and shorter programs, could in this sense multiply supply. Data on the increase of private institutions were presented here in a previous section.

On the other hand, the fact that States were not the only actors with the initiative to create institutions has stimulated various sectors and actors to present their own proposals. Besides universities linked to religious institutions, others have appeared, associated with companies, with the armed forces, social movements, opinion sectors, and groups within a particular disci-

¹⁷ De Lacerda Peixoto, M. *Op. Cit.*

¹⁸ *Ibid.*

pline. During the 1990's, States, while stimulating these creations, attempted to control them through legislation by obliging them to be accredited or be assessed, to adjust to a particular structure, etc. However, there have been notable gaps in many countries in which the norms were able neither to contain nor to regulate the profusion of institutions and degrees.

Together with this, given the predominant ideology that under the religion of the market denied the characteristic of education as a both an imperfect market and quasi-market, and with the question of pertinence not being raised, the multiplication of degrees and entering students did not coincide with the desired efficacy in employment structures, in which one continued to observe an appreciable gap between training and knowledge demanded by the labour market.

The growth of graduate programs

The growth of graduate programs was another key element during the 1990's. This was in part linked to reform proposals and in part as a response to developing trends in education systems throughout the world. Latin America began its development from a very low level. Therefore, in part, growth numbers are so high in some cases. Whatever the case, on this point, as with the relation between public and private education, it is possible to note significant differences in the state of graduate programs in different countries.

Brazil is the only Latin American country that has a tradition of graduate studies, with its quality assured by the assessment system of the *Coordenação de aperfeiçoamento de pessoal de nível superior* (CAPES), an agency of the Brazilian Ministry of Education that is dedicated to the development of graduate education and to fostering training in Brazil and abroad. Brazil currently has 2,300 graduate training programs in more than 200 institutions of Higher Education, and 35,000 Ph.D. level instructors training 130,000 students. In Mexico, the growth of graduate programs has increased five-fold from 1980 to 2001, going from 25,505 to 127,751 students. In Chile as well, growth has been notable, with enrolments also increasing during the 1990's. Argentine graduate programs grew by 107% from 1994 to 1999. Cuba and Colombia show similar figures. For the rest of the continent, however, graduate programs are only beginning, and do not always link themselves effectively to research, and which in many cases have appeared and function under a market mentality.¹⁹

The development of computer-based education

The development of new technologies has brought more diversity and complexity to the situation. Traditional distance education has been strengthened thanks to the technology of the internet. Although in this area as well the continent suffers the limitations imposed by scant resources and technological limitations and difficulties for equitable access, it is true that in some cases notable results have been achieved. "University systems that stand out in the use of computer-based platforms for offering academic programs are Argentina, Brazil, Chile, Colombia, Mexico, Peru, Puerto Rico, Uruguay, Venezuela, and the community of English speaking Caribbean countries."²⁰ In contrast, in countries such as Cuba, Bolivia, Peru, Ecuador, Haiti, Honduras, Paraguay, Nicaragua, or Guatemala, given that internet access is limited to 10% of the population, this kind of development is unthinkable.

19 Duriez González, M. *Op. Cit.*

20 Duriez González, M. *Op. Cit.*

In regard to this question, little was established in the legal instruments produced during the 1990's – perhaps because the take-off of such technologies was still unpredictable, or because, as often happens, practice runs in front of legislation. Thus, in spite of distance education via the internet having become an every day training alternative, very few countries have legislation that regulates it.

Transnational education

One of the greatest risks of the expansion of computer-based education without any kind of government control has to do with transnational education. In effect, internet technology allows students from Latin America to receive various kinds of training. At the same time, transnational education is closely linked to the growth of private education to which we have referred.²¹ Through the use of various modalities such as the establishment of foreign branches, the granting of double degrees, the carrying out of linked programs, internet-based distance education, etc., transnational education has become important in the last decade. In many cases, the possibility of entry into countries has depended upon strategic alliances with local institutions that offer the international link in order to compete with other local institutions. In other cases, technological developments have occurred making it possible to create computer-based education systems in which physical, social, and cultural differences between who provides the education and who receives it are reduced thanks to networks. In others, there have been attempts to reduce the weaknesses of local systems through agreements abroad.

Recently, Sylvie Didou Aupetit published a detailed study of the subject of internationalization and the foreign providers of Higher Education for Latin America and the Caribbean²². The work was carried out through case studies, made with different methodologies.

According to this work, one can find a kind of chronological sequence in the arrival of foreign institutions in Latin America, beginning in the 1980, beginning with associated schools and followed by alliances between institutions in particular programs, development of computer-based education, franchises, and for-profit universities. The presentation of the situation is provisional by definition, due to reasons similar those to which we referred above: large gaps of information for many countries, and the inexistence of shared terminology.

European countries are among the major providers of transnational education in Latin America, and Spain in particular. The reasons are due to cultural affinities and to a common language. However, there is a marked presence in some contexts of United States business groups in transnational education programs. On the other hand, one may note that gradually, Latin American universities themselves are becoming exporters of education services to other countries of the region. “In recent years, offerings of educational services from Latin America have grown. This has been based primarily on linguistic homogeneity, on migratory flows, and indirectly on macro-regional economic integration agreements, with repercussions in the area of education”.²³

The situation is not the same in all countries, and depends on various factors: the characteristics of the Higher Education system itself, the position of the State in regard to financing

21 IESALC stated in 2003 that in Latin America there is a three-part model: public, local private, and international private.

22 Didou Aupetit, S. (2005). *Internacionalización y proveedores externos de educación superior en América Latina y el Caribe*. ANUIS. UNESCO.

23 *Ibid*, p. 26

the education system, legal restrictions, the possibilities of finding available demand, etc. In some cases, transnational education has become a significant actor; in others it is still at the margins of the system.

Still, the progress of this modality has created a number of problematic situations that are yet to be resolved.

First, there is the problem of the definition of education as a public service. According to the World Trade Organization, education services should be de-regulated in order to make possible their free circulation between countries. This, placed on the internet as a platform, multiplies and accelerates any kind of movement. But if the definition is guided by the second case, the State then becomes a guarantor of the education offered, and thus must have the means necessary to control the offerings. The reforms of the 1990s, although in general they ratified this second position, did not incorporate the legal tools necessary in order to deal with the arrival of international providers. Given this situation, either because they did not have the resources to control this dissemination, or because their systems exhibited weaknesses that transnational education proposed to alter, etc., some States could do little to contain or control these developments.

The problem, then, is one of both definition and of execution: from what position and with what tools may each State confront the expansion of transnational education, control the quality of the content offered, and arbitrate mechanisms of the recognition of degrees?

Second, the arrival of transnational education revives a key argument in the cultural history of Latin America: how to develop and active and critical attitude, and not merely passive and defensive, in the face of cultural offerings coming from outside? In other words, the problem is deciding how to position education systems of the region in the face of foreigners in a solid and flexible manner – not in order to avoid the development of good international programs, but rather in order to filter those that are of low quality or those that are only developed for commercial purposes. In this regard, the reforms of the 1990s left practically no prescriptions.

A case in point is that of Laureate International Universities. This is a U.S.-based education consortium created in 1998, and which has managed to set up in 15 countries in the Americas, Europe, and in Asia. It works with an in-class and computer-based modes using the U.S. educational model. It offers programs in business administration, law, education, telecommunications, social sciences, engineering, information technology, tourism, humanities, medicine, psychology, and many others. It is the successor of what was called Sylvan Learning Systems. In the case of the Americas, it has offices in Brazil, Chile, Costa Rica, Ecuador, Honduras, Mexico, Panama, and Peru.

The concern here is that this is clearly a for profit venture. This is not the appropriate place to analyze the extent to which this characteristic effects the expected standards of quality, or the extent it has a cultural impact. But undoubtedly it represents a challenge to the conception that sees education as a public service, without any profit in mind.

Integration policies

Another novelty of the 1990s was the development of regional cooperation and integration. On the one hand, the very pace of globalization stimulated the creation of these developments at all levels: economic, cultural, political, and educational. On the other, in the case of those regions in which globalization seemed to be more damaging than constructive,

integration became a possible alternative for becoming stronger compared to other regions. In many cases, it has been these more general integration frameworks that have facilitated and/or stimulated the beginning of projects linked to education.

Latin America has not possessed a long tradition in terms of university integration. Between 1948 and 1990 there were only 6 agencies that worked in linking the institutions of various countries within the continent. Beginning in 1990, more than ten were created. Some had a continental perspective, while others were made up of countries of a particular region. Some only involved universities and others incorporated research centres as well. In some cases, the organisms were created based on the public or private character of the institutions. Finally, notable as well was the creation of a network linked to the subjects of assessment and accreditation and the development of studies and analyses of the state of Latin American education that worked in a decentralized manner, with the participation of specialists and institutions of all countries of the region.

In the middle of the 1990s, MERCOSUR created a particular body to work on the subject of Higher Education. The positive result of this initiative has been the development of an experimental program for recognition of courses, called MEXA that has recently created and put into place an important project on accreditation called ARCU-SUR. This project exists on a permanent basis and with a much broader base in terms of the number of courses, institutions, and resources than that of MEXA. Similar experiences of regional integration, related to particular questions of Higher Education, can be cited as well for Central America and the Andean region. The beginning of these agreements took place in the 1990s.

The Ibero-American-Network for Accreditation of the Quality of Higher Education was created in 2003. It is composed of national and regional accreditation organizations and of government agencies responsible for policies related to the quality of Higher Education. Although its major objective is directed at the quality of education, the work that has taken place represents a concrete experience of integration.

Integration has been constructed as well through the work of organizations such as IE-SALC. It has carried out an intense series of studies, meetings, publications, etc., through which it has produced more and better knowledge regarding the state of Higher Education within countries. These, in turn, have made it possible to carry out comparative studies on particular subjects.

In summary, some of the major changes taking place in the region during the 1990s were the following:

- Strong support from international organizations in order to achieve greater diversification of financing resources; reform of management and governance of universities; the generation of stimuli for diversification of university systems; the development of assessment and accreditation processes; the need to more effectively and efficiently link teaching with the development of industry and research.
- Fostering of de-regulation through the creation of regulations. Thus, in most Higher Education systems one may see:
 - a- New bodies of norms that include references to Higher Education in new constitutions, new laws, and various regulatory guidelines;
 - b- Assessment and accreditation as a feature shared by all Latin American education reforms;

- c- The creation of new organisms for assessment, the generation of information, and financial control;
 - d- Competitive funds: the granting of extraordinary funds to university teachers based on their merits and backgrounds; the financing of various projects, etc.;
 - e- Adjustment of Higher Education financing within the framework of persistent government deficits, together with the appearance in some systems of tuition charges and the fostering of Higher Education as a service provider as for universities to obtain their own funds.
- The growth of enrolments in Higher Education and an expansion of the institutional base of Higher Education, particularly of private financing, and as a consequence of both, diversification and differentiation of the system and an expansion and differentiation of programs and degree courses, particularly short cycles and graduate programs;
 - The development of new technologies and the appearance of on-line education;
 - Trans-nationalization through on-line offerings and the creation of networks;
 - The beginning of regional integration policies.

Some recent changes – a brief summary

Events at the beginning of the century in Higher Education in Latin America can only be understood by considering their inter-dependence with a group of recent and wide ranging changes.

Economic growth and policy change

There have been gradual changes in Higher Education policies in the region, fostered by favourable conditions for its growth.

Between 2003 and 2007, per capita GDP in Latin America grew by 15%, while unemployment rates fell and real salaries increased.

Increased international demand for the region's primary products, particularly from important emerging markets such as China and India (which currently contribute 33% of the increase in world GDP) has generated sustained growth. Probably, due to the results of the application of formulas current at the end of the XX century, growth has resulted in instruments that reduce the impacts of external financial imbalances. In contrast to other periods, there was a decrease in the foreign debt/exports ratio, tax collections grew more than spending, public account balances improved, the debt capacity of international agencies increased, and as a result, the region became less vulnerable to external economic changes.

In spite of the fact that massive social and economic issues have been faced and that the region is less vulnerable to the wills of international financial agencies and to the strategic counter cycles of foreign events, there still persist situations of glaring social inequality and of technological and productive stagnation. In this regard, one notes indications of changes in the conditions of economic, social, and cultural development and a turn-around in policy focuses toward resolving the problems of inequality, poverty, and competitiveness as well as a conviction of the important role of Higher Education in the region in terms of windows of opportunity and the development of key structural reforms.

Economic proposals and trans-nationalization

This phase, characterized by a revitalization of the political essence of government affairs, and one in which Higher Education assumes an important role, occurred, however, within a context marked by the predominance of economic proposals and of transnationalization over those of the development of important Higher Education subjects per se such as conditions of access and of new technologies, teacher and student mobility, and curricular innovations. Latin America is among the regions that are vulnerable to changes that produce this reallocation of strategic resources, suffering, and continuing to suffer substantial economic, social, and cultural losses without being responsible for their origins. Part of the efforts and resources of the region are increasingly dedicated to reducing the impact of this phenomenon rather than placing them on developing appropriate formulas that take advantage of progress in the objectives embodied in the commitment of UNESCO in terms of reducing the gap that separates underdeveloped areas of the world and the solution of specific issues therein.

Thus, the initial efforts of the region in regard to Higher Education are altered by the eruption of an aggressive strategy that combines addressing the demand for advanced training on the part of transnational providers, a fierce competition among developing countries in recruiting the world's best talent, the dissemination of new technologies without the inclusion of comprehensive plans for their use, and the dissemination of programs for assuring the timely provision of qualified personnel to international chains of production, with short-term and insufficient visions for attaining the strategic intellectual capacity of the world's regions.

Deterioration of language referring to Higher Education

Another factor that distinguished the beginning of the century has been the serious erosion experienced by language referring to Higher Education. The perspective of the new public management, markedly "economicist" in nature, has penetrated the habitual language of university analysts and decision-makers. Such terms as "academic capitalism", "transactions in the student market", "the enterprising university", "periphery of improved development", "discretionary financial base", "stimulated central territory", among others, has been adopted in order to interpret nearly all local phenomena regarding Higher Education. This is not by chance. Latin America is one of the regions where the processes of "mercantilization" of various forms of cultural production have come to be widespread and that appear in various forms.

2. Actions at the beginning of the century

The changes needed in Higher Education for the new schemes of development of the region involve changes at the institutional and global levels, but at intermediate levels as well. Governmental actions are necessary in order to deal with the multiple facets of Higher Education. Moreover, international cooperation is needed, given the fact that it is inherent to this level.

At the beginning of the XXI century, Higher Education in Latin America finds itself between the new and old contexts of economic and social development, facing international scenarios guided by new rules, and with key participation in new public policy, the analytic treat-

ment of which surpasses goes beyond the mind set dominated by the managerial approach.

Recent declarations found in the summit meetings of ministers of education and in regional meetings of education authorities reveal a change in the themes present on public agendas.

Without underestimating the profound significance of political decisions, it is a fact that, in light of the immense problems faced by the region, the changes, besides being recent, tenuous, and incomplete, touch upon unknown regions that the very implementation of public policy must cover.

The underlying causes and the final consequences of the changes taking place are far from being well understood. However, the fact that they are being approached is a key factor for outlining the position of the region for the upcoming World Conference on Higher Education in 2009 in terms of the discussion of global policies that will guide the development of Higher Education throughout the world during the coming decade. Moreover, this approach is vital in any exercise that links policy decisions and results, and its complexity is inherent to the framework of this link.

The effects of the intensification of world trade on national economies will have positive impacts to the extent that actions are carried out able to modify the structural obstacles that affect balanced development, or, what is the same, to construct a new model of growth, and within it a set of guidelines for Higher Education.

This involves a process of profound, although gradual change, in the field of ideas and in behaviour as well as in organizations and institutions.

4 themes, 25 proposals, and a postscript comment

Actions in the field of Higher Education are linked to a broad range of variables touching upon many areas.

We have organized them into four basic dimensions:

1. The social commitment of advanced knowledge
2. The potential and challenges of new technologies
3. Management and financing
4. National and international frameworks

The social commitment of advanced knowledge

The first years of the new century place training in Higher Education as never before among the imperatives of the knowledge society: a range of flexible skills that, throughout life, respond to social demands: greater and more equal access; greater and improved mobility; and international recognition of training paths.

There are 12 proposals:

PROPOSAL 1 – Strengthen the comprehensive vision of education

PROPOSAL 2 – Revert trends in drop-out and in the lengthening of time spent in courses

PROPOSAL 3 – Respond to the changes in the profiles of students

PROPOSAL 4 – Develop a careful system of articulation and mutual recognition that contributes to flexibility and mobility

- PROPOSAL 5 – Strengthen regional policies for the convergence of science and technology
- PROPOSAL 6 – Strengthen regional policies for retaining highly qualified individuals
- PROPOSAL 7 – Develop compensatory and support policies for teaching staff with fewer options for access to competitive subsidies
- PROPOSAL 8 – Take a comprehensive approach to the processes of social and territorial mobility
- PROPOSAL 9 – Strengthen and support regional assessment and accreditation schemes
- PROPOSAL 10 – Generate skill building and support improvement programs resulting from assessment processes
- PROPOSAL 11 – Support research for identifying paths toward improvement
- PROPOSAL 12 – Strengthen regional studies related to the dynamic of professional employment

The potential and challenges of new technologies

The first years of the new century show progress in the use of digital information and communication technologies to such an extent that, in terms of connectivity, the internet community in Latin America has the fastest growth of any in the world. However, there is a need to strengthen the region in order to best take advantage of the potential of these technological resources.

There are four proposals for this area:

- PROPOSAL 13 – Strengthen activities leading to regional convergence in on-line education
- PROPOSAL 14 – Overcome problems of falling behind in investments in technology
- PROPOSAL 15 – Reduce the internal and external digital gap
- PROPOSAL 16 – Foster studies related to the impact of the new technologies on teaching and learning processes

The management and financing of Higher Education

The first years of the new century are characterized by an increase in public and private investments in Higher Education and by the presence of complex university agendas in regard to their management.

Between 1998 and 2002, the value of public budgets in the region dedicated to Higher Education increased nearly two-fold, and in 2002 absorbed 23% of the amount dedicated to all levels of education.

There are four proposals for this area:

- PROPOSAL 17 – Improve the management of institutions of Higher Education
- PROPOSAL 18 – Strengthen the coordination of efforts carried out by various entities related to Higher Education.
- PROPOSAL 19 – Support the efforts of institutions of Higher Education in regard to social commitment.
- PROPOSAL 20 – Reduce the spending of the poor on private education.

National and international frameworks

Most definitely, Higher Education is strengthened or weakened at the local level, and it is government policy that creates incentives that either facilitate or restrict the development of these institutions. The profound changes taking place in Higher Education foretell the need for creating intelligent policies, analyzed by taking into account a vast number of variables. One should not forget the globalization taking place in education, and the enormous interconnectivity of many of its components.

There are five proposals for this area:

PROPOSAL 21 – Take advantage of Higher Education networks in order to improve territorial coverage.

PROPOSAL 22 – Strengthen governmental policies.

PROPOSAL 23 – Strengthen capacity in terms of international relations.

PROPOSAL 24 – Make development aid a factor for strengthening Higher Education.

PROPOSAL 25 – Strengthen the international legal framework related to Higher Education.

PROPOSAL 1. Strengthen the comprehensive vision of education

The concept of continual education is one that has been under development since the end of the 1980s. Due to its impact, various analysts see it as one of the most important elements that this era has contributed to education. The traditional focus based on studying in order to obtain a degree and to spend a lifetime in a profession using this knowledge was replaced by a new concept based on constant up-dating and continuous re-training, not circumscribed to a particular period of life. The idea of education as a preparation for life has increasingly given way to that of life-long education.

The origins of continual education may be explained through at least two different visions²⁴:

- The concept of education as a permanent and life-long process that involves the person in a comprehensive manner and that assumes that the need to learn is not finite and that it is related to any type of productive activity carried out by human beings as an essential element in the progress of civilization.
- The historic interpretation regarding the development of ways of conceiving occupations and professions, and the different strategies that societies have utilized in order to train new professionals and to guarantee their quality.

Both of these concepts require that we go beyond the restricted concept of education that limits it to formal institutions as the only agents as well as limiting it to particular times of life. Thus, continuing education presupposes a redoubled synchronic and diachronic effort of education policy, and within it, of Higher Education.

From the synchronic dimension it is vital to pay attention to the socio-educational family and community context. In 2002, in the region, 221 million people, or 44% of the total population, existed in a state of poverty, while 97 million, corresponding to 19.4% of the inhabit-

24 Izquierdo García, B. y Schuster Fonseca, J. *La educación continua, una alternativa para la formación de los recursos humanos*. Comisión Mixta de Capacitación y Adiestramiento UV-FESAPAUV. Programa Desarrollo de Competencias Académicas procedimiento de la Educación Continua, Xalapa, (enero, 2000), pp. 1-5.

ants of the region, were in conditions of extreme poverty. In 2005, 39.8% of the population of Latin America lived in poverty (209 million people) and 15.4% (81 million) in extreme poverty. These figures show a decline of more than 4% in regard to 2002. The most significant improvements were in Argentina (26% living in poverty in 2003/2005, compared to 45.4% in 2000/2002) and Venezuela (37.1% in 2003/2005, compared to 48.6% in 2000/2002). Moreover, Colombia, Ecuador, Mexico, and Peru had decreases of nearly 4%.

Due to their coverage and obligatory nature, primary and secondary schooling are not as influenced by poverty figures as is Higher Education, and although rates have improved, poverty continues to present an enormous challenge to the countries of Latin America, and one that is unavoidable when thinking about actions to be taken in the future. When designing instruments related to this challenge, it is necessary to consider the activities being carried out by educational institutions in terms of social commitment and non-formal education, including those undertaken by Higher Education.

From the diachronic dimension, it is clear that the impact of poverty on school performance is made evident during pre-school, primary, and secondary education, and also later upon entry into Higher Education.

For this reason, some countries of the region are making progress in broad policies of access²⁵ based on better linkage between different levels of education. The mechanisms are varied: strengthening teacher training, collaboration between levels in the definition of skills, early assessment of them, among others.

Due to their special nature, policies for on-going postgraduate training require special designs that consider not only their contribution to raising the general level of education, but also treat their key role in developing groups of the most highly learned.

Graduate training is an important catalyst in both processes. First, due to their “internationalized” nature, graduate training can be the most agile in terms of academic mobility and students, of specialization of disciplines, and, much related to the latter, of world dissemination of the rules of legitimation. Second, pre-competitive and transfer developments toward the world of innovation are produced through the dynamics of research, transference – disciple training – graduate – mobility.

Third, specialization is not longer guided only by progress in disciplinary research. The problems of the marketplace have led to the emergence of new disciplines derived from a mixture of specialties: “artificial intelligence”, “nanobiotechnology”, and many others.

Thus, the areas of specialized training come to have unmatched roles and with even more relevant perspectives for the future. The growth rate of graduate enrolments (which in Latin America during the last decade has been 31% annually) also attests to the importance of graduate training.

As has always been the case, graduate activity will determine the kinds of teachers we will have in the future, as well as the kinds of new knowledge, new interpretations, new explanations, and new commitments. Thus, the graduate area is called upon to be a tool *par excellence* for the periodic updating of the traditional professions such as medicine, law, business administration, and accounting, and which in the future can become an indispensable factor for professional re-certification in the labour market. Recent studies carried out in Europe and in

25 De Lacerda Peixoto, M. in the document “*Reformas da educação superior na América Latina e o Caribe. Inclusão, equidade, diversificação e diferenciação*” contains various strategies relative to access to Higher Education and its relation to equity.

the United States²⁶, show how stability and continuity in scientific disciplines are maintained through a process of socialization of doctoral research with the structure and organization of the laboratory or research group, as well as within the working areas of companies. We see today how the dynamic of many companies, especially high tech companies, are imbued with graduate culture. The imperatives of development of the countries of the region will also very probably take on the imprint of the graduate sector.

The advanced training of specialists in different professional, employment, and productive areas, as well as teacher and researcher training in different scientific and technological fields is a key priority.

Good Practices

- Strengthening the effective participation of ministerial areas in the design of policies that raise the overall quality of education through schemes that better integrate schooling cycles; in building a network that embraces and strengthens the multiple educational resources of a society; and in setting priorities for creating a critical mass in areas that are strategic within the new contexts of development and that make it possible to create advanced research and training programs.
- On the international plane, of prime importance are catalyzers that integrate efforts in terms of the quality of education, such as an international panel for the development of policies and priorities that improve national strategies for raising the quality and equity of education; the existence of incentives so that general policies to raise the quality of education is joined with other relevant policies.

PROPOSAL 2. Revert trends in drop-out and in the lengthening of time spent in courses

For years, governments of the region have carried out various policies in regard to the problem of school drop-out and grade repetition. Nevertheless, the initial years of the century have made evident the insufficient nature of these efforts. The Report on Higher Education in Latin America and the Caribbean, 2000-2005 summarizes progress attained in selected projects that create conditions for transferring credits and revalidating degrees through the regional accreditation of courses and the assessment of qualifications based on agreed-upon frameworks of norms of quality, or the development of common referents for professional skills and a shared system of credits.

Whether due to problems in defining what they wish to study and the meaning of advanced studies, to the complexities of study methods, to deficiencies in guidance and lack of support in progressing through a training program, to degree training having lost its centrality in academia, or due to a combination of all of the above, the fact is that every year enormous numbers of students abandon their studies and become part of host of those disenchanted with Higher Education. Others remain within programs for years before reaching their goals. To this group of variables one must add the social situation as well (Peixoto, 2007).

In the document “Higher Education Reform in Latin America and the Caribbean. Inclusion, Equity, Diversification, and Differentiation”, Peixoto compiles various policies carried

26 Enders, J. (2002) Serving Many Masters: The PhD on the Labour Market, the Everlasting Need of Inequality, and the Premature Death of Humboldt. *Higher Education*, v44 n3-4 p493-517 Oct-Dec 2002.

out by countries in order for students to remain within the Higher Education system.

The indicators for the region are conclusive: for every 11 students who enter, one graduates (while in developed countries the ratio is 4 to 1).

It will be extremely difficult to reach the required mix between development of the region and human capital when the percentage of adults with Higher Education remains between 8% and 16% of the labour force.

Although this is a problem in various parts of the world, for developing countries the loss of resources and the impact of the loss of potential human capital are even more serious.

Good Practices

The generation of strategies aimed at reverting the grave situation of drop-out and the lengthening of time spent in courses. Among others, the establishment of early warning mechanisms for academic achievement problems, the strengthening of information systems in reference to graduates, and generation of lines of support for improving the capacities of institutions in terms of student retention and achievement.

PROPOSAL 3. Respond to the changes in the profiles of students

The growing massification of Higher Education introduces changes in the social profile of students, bringing it closer to the general structure of society: increasing participation of women, students not from major centres, students as clients, short-term students, professional students, working students, distance students, indigenous students, racial diversity, and students with disabilities, together with the traditional students.

All indicators (as reported by numerous studies in the region: The Report on Higher Education in Latin America and the Caribbean 2000-2005 – IESALC (2006) describes various programs related to the inclusion of different groups in Higher Education) show these trends.

Moreover, institutions of Higher Education have incorporated programs in order to serve the particularities resulting from this social differentiation in the search for greater equity. Some governments are making systematic efforts to meet the demands of a drastic increase in enrolments – for example the Venezuelan case with its various experimental universities and its university villages are notable efforts in this sense²⁷.

Good Practices

Effective involvement is required of ministries of education in developing actions for educational convergence on the regional scale, as well as in the world commitment in this area that effectively support carrying out actions pertinent to the conditions of regions.

PROPOSAL 4. Develop a careful system of articulation and mutual recognition that contributes to flexibility and mobility

Since the 1970s, most institutions of Higher Education in the region have introduced

27 Albornoz, O. (2007) Recent changes in Venezuelan Higher Education. In: *International Higher Education*, number 48, summer 2007.

modifications in their curricula in order to meet the needs of flexibility and coverage of an increasingly broad demand for a diversity of skills.

Curricular reforms and institutional alliances built around them are in continual expansion, together with a constant process of differentiation, resulting in innumerable curricular formulas. The Report on Higher Education in Latin America and the Caribbean 2000-2005 – IESALC describes progress in regard to projects that seek to bring together conditions for transferring credits and recognizing degrees through the regional accreditation of courses, the assessment of qualifications based on agreed upon frameworks of quality norms or the development of common referents for professional skills and a shared system of credits. (IESALC, 2006, pp. 29 – 32). Also, De Lacerda Peixoto In the document “Higher Education Reform in Latin America and the Caribbean. Inclusion, Equity, Diversification, and Differentiation”, Peixoto lists various reforms carried out by Latin American countries, linking them to research programs.

Thus, in recent years, agreements have been signed between countries to establish compatibility between these modifications: TUNING, a cooperative program between Latin American universities and the European Union and “6 by 4”, prepared since 2004 and launched in 2005.

In this regard, there are three issues that are a key to the discussion: How to develop programs able to serve a broad and diverse range of student, society, and business demands, and how to balance national, cultural, and social priorities with the provision of opportunities for mobility.

It is necessary to know what real learning is certified by degrees and their denomination and content, as well as to create a careful, incremental, and progressive scheme for the mutual recognition of degrees between and within the countries of the region.

Good Practices

In light of these needs, it is necessary to strengthen actions that contribute to the effective involvement of ministries in the development of actions leading to educational convergence that meet the institutional needs of curricular reform as well as the priority areas of the region.

For its part, international cooperation should take place based on safeguarding such priority interests. Thus, it will be necessary to have a framework that guides action around these strategic aspects and makes it possible to generate knowledge that contributes to the appropriate design of policies.

PROPOSAL 5. Strengthen regional policies for the convergence of science and technology

The first years of the century demonstrate that Latin America has not been able to move forward satisfactorily toward a profile of intensive specialization in knowledge and to turn around the low rates of utilization of highly qualified human resources.

Comparative data for 2000 and 2004 show the following:

- R&D spending grew in the region by 9% (in terms of PPC), but have decreased in dollar

terms.

- The number of researchers per 1,000 of the economically active population increased (from 1.18 to 1.43).
- The number of patents granted has decreased (from 19,411 to 17,070), and in world terms participation does not reach 0.3%.

There are problems of coordination between the education system and the economic system, as well as difficulties in overcoming the lineal model of innovation and to able to link science, technology, and economic and social development:

- Although from 1988 to 2003 Ibero-American participation in world production of knowledge doubled, going from 2.5% in 1988 to 5.2% in 2003, the region's contribution to scientific and technical knowledge has been 4% - less than half of its participation to the world population.
- Among Ibero-American countries, more than one-third of their scientific and technical production amounts to articles produced under a system of international co-authorship.
- The percentage of citations generated by articles published in the region, in three different years during the last decade, shows progress through time. In any case, the average Ibero-American participation is low compared to that of developed countries.
- Student mobility has increased, as a part of the new dynamics of learning in the knowledge society.
- The relation between spending on R&D and production of knowledge, measured by the number of articles published and registered internationally, shows disparate productivity in Ibero-America between countries, with an average of 3.2 articles produced per every million dollars spent, and with Argentina – among the major producer countries of the region – being the most productive, while among these Mexico having the lowest rate.
- In terms of the number of articles published per 100 researchers, average Ibero-American productivity is approximately 24 articles published, with in this case Argentina occupying the lowest position among the major producer countries of the region.

Still, various countries in the region have science and technology plans for the coming years. Peru: National Plan of Science, Technology, and Technological Innovation, 2006-2021. Venezuela: National Plan of Science, Technology, and Innovation, 2007-2013. Argentina: National Strategic Plan of Science, Technology, and Innovation, 2006-2010. Guatemala: National Plan of Science, Technology, and Innovation, 2005-2014.

Intelligence and knowledge are irreplaceable reserves in any scheme for social and economic progress. Moreover, the impulse for creation and scientific research and the generation of an atmosphere of confidence and safety are fostered where scientific, economic, and cultural activity can take place on the basis of collaboration and mutual influence.

Good Practices

There is a need for the serious involvement of ministries in developing actions of scientific and technological convergence on the regional scale.

PROPOSAL 6. Strengthen regional policies for retaining highly qualified individuals

According to World Bank estimates, in the year 2000, 14.3% of Mexican university graduates resided outside that country. The figure for Colombia is 11%, for Ecuador 10.9%, from Chile 5.32%, Brazil 3.3%, and for Argentina 2.5%. The highest percentages are found in Central America. This is not a phenomenon exclusive to emerging countries. More than 400,000 scientists born in Europe live in the United States, and account for some 40% of the research pool of that country. Of the thousands of Europeans who annually receive their doctorates in the United States, high percentages choose to stay in the country.

For some years now, in various places, the term “flight” has been replaced by those of “mobility”, “circulation”, and “mind networks”. This perspective is defended due to the fact that scientists and technicians produce knowledge on a global scale within a framework of face-to-face and on-line cooperation networks. Thus, teams of researchers public and private research centres, university and industry personnel, function in systems of dynamic relations based on the exchange of knowledge. From this perspective, the mobility of trained personnel can contribute to reducing the gap between developed and underdeveloped countries, since experiences can be transmitted from the first world to other countries. It is also claimed that there is evidence of “brain wastage” when talented scientist and technicians return to their home countries and are under-utilized when they do not find appropriate places for their development.

However, this kind of logic deals exclusively in terms of individuals, and not in terms of the contributions that the presence of talented scientists can make on scientific communities that are still not advanced in terms of being in contact with more important developments and to stimulate them in this sense. Moreover, such reasoning may be dangerous to the extent that it becomes a basis for the international division of intellectual labour with growing asymmetries.

Public policies of the region have adopted strategies both for the creation of networks that facilitate links between sciences as well as for repatriation. The Caldas Network (Colombia), Raíces (Argentina), the Repatriation Programme (Mexico) are, among others, efforts by States to link academics and scientists who have emigrated from Latin America.

Nevertheless, Latin America experiences a net loss of resources of a structural nature; or from another perspective, it experiences a permanent re-location of Latin American scientists working in the world’s important research centres.

The global experience offers cases in which it has been possible to make use of a series of strategies in order to combine the continuous “in situ” development of talent and the possibility of taking advantage of links with those who have emigrated. An examination of these cases illustrates the importance scientific management, of working conditions of scientists, of the thematic development with which they are occupied, of scientific and technological productivity, of the civic venue in which the group works, and fundamentally of the levels and continuity of financial contributions and, among these, those that come from the State.

The rules for legitimation do not appear to have changed. Networks do function and here and there, the nodes become true interlocutors.

But beyond the benefits that can be gained by having a critical mass of the region distributed in various developed areas of the world (a focus fostered by various international entities),

the persistence of this misfortune is proof of the serious problems of the context of national development.

More still, when the recruitment of qualified personnel continues to be a priority for the developed countries, without consideration for the impacts on their countries of origin. So important is recruitment that governments of these countries have created various programs to facilitate channels of mobility from various points on the planet. As an example of the importance that this them will have in coming years, according to the Migratory Policy Institute of Washington, an increasing number of industrialized countries have adopted point systems for granting resident visas, with graduates earning the most points. For example, in 2006, Great Britain decided that the graduates of the 50 best business schools of the world would automatically receive the 75 points that the country requires for permanent residence. The European Union is considering adopting a point system. If the United States follows the same policy, there may be competition between wealthy countries to receive the world's best-trained graduates.

The advice for public policy is clear: intelligent financing is necessary. The situation of the region can be observed by means of an impressive fact: in 2003, South Korea invested more than 15 billion dollars in R&D, while all of Latin America invested around 11 billion.

Good Practices

Taking into account the special needs of developing countries in terms of the recruitment of scientific personnel, programs must be strengthened that facilitate the mobility of academics and scientists and of their knowledge, but that simultaneously guarantee the existence of analogous qualified personnel in the region. Thus, there must be considerable growth in the amount of financing by governments and by international agencies directed at scientific and technological activities in the region.

PROPOSAL 7. Develop compensatory and support policies for teaching staff with fewer options for access to competitive subsidies

The need to obtain additional personal income (through linkages with companies or another type of entity); the competitive profile entering into academia in the light of the increasing capacities for search and coverage of these areas; as well as the increasing difficulties in retaining highly-qualified personnel in the face of growing demand from various areas of the private sector that have incorporated R&D activities, or from the State; these are processes that change the rules and values associated with the academic profession. Growing international mobility also changes the rules.

Beyond the impact that these three factors can generate on areas in which are placed at risk the reputations of individuals or of small groups within the field, such as peer assessment of research work and teacher competitions, its effect is clear regarding the knowledge at play, while greater or lesser links with the labour market outside academia depend on the practices of each discipline.

In this regard, it is enough to observe the importance of criteria regarding independent income in the accreditation processes of university courses in all countries in the region. In the document "Higher Education Reform in Latin America and the Caribbean. Inclusion, Equity,

Diversification, and Differentiation”, De Lacerda Peixoto lists various policies and changes in regard to academics. Through accreditation, to the criteria of disciplinary exclusion are added certain practices of academic teaching, and in this way pretty much completing the professionalization of this profile of the university academician.

Thus, this new cognitive entity that offers accreditation to the field involves the appearance of new directions of disciplinary culture. Accreditation involves a change in the scale of the field. Proposals for change that come from within institutions no longer depend solely on the strength of one group compared to another. Rather, they are consecrated on the national level, by other peers and by the State. Probably, the rates of coverage of accreditation processes taking place in the region spring from the opportunity they offer to academic groups to legitimize particular interests.

The free play of competing academic groups is important because it makes for academic freedom. It is clear, however, that the preeminence of a competitive focus based on competitive funds has generated increasing gaps between groups, as well as problems in their respective relations, and even has led to the weakening or extinction of those with greater difficulties in terms of their linkages with the new economy of knowledge.

In this sense, of key importance is strong State intervention that benefits academic communities that have particular features, primarily those that, due to characteristics of the discipline, have fewer access options to competitive subsidies, or it may simply be the case of areas that need to be strengthened in view of present or future national development needs.

Good practices

Compensatory practices are needed that raise the general level of Higher Education. This involves paying attention to disciplinary diversity and heterogeneity in the development of teaching, academic, research, and technology personnel.

PROPOSAL 8. Take a comprehensive approach to the processes of social and territorial mobility

Social and territorial mobility are indissoluble parts of the same term: capacities and conditions that contribute to the expectations of individual development.

The international mobility of students – in terms of going and of receiving – is low in the case of our region. As a whole, countries participate at the world level with 7% of students who depart their countries in order to study abroad. The region receives only 3% of students the international students of the world.

The conclusion is simple: Latin America is not attractive enough to mobilize the talents of the world.

In terms of social mobility, even with diminished rates of poverty and extreme poverty, after Africa Latin America is the region with the greatest inequality in the world. The 20% poorest portion of the population correspond just only 3% of consumption. In terms of Higher Education, the highest income quintile sends 50% or more of their children to Higher Education, while for the lowest income quintile this figure varies between 10% and 20%.

Moreover, according to a recent World Bank report, in many Latin American countries academic achievement gaps between students are products of high social inequality. The re-

port also states that: a) Latin American countries are among those of lowest academic achievement in the international assessment of students in areas such as mathematics; b) There are an enormous percentage of students whose academic achievement is below minimum levels in all subjects; c) Few students in the region complete their studies possessing an internationally competitive education. The second conclusion is simple as well: Latin America is behind in terms of the possibility of providing opportunities of access to Higher Education to different social and economic strata of its population and to the social mobility that this assumes.

However, is important note programs like: The University for All Program (ProUni) recently launched by the Brazilian government. Its main objective is to foster the access of nearly 300,000 low income students to Higher Education in private universities within a period of five years. Students benefiting from ProUni are pre-selected according to their economic profiles and the National Secondary Schooling Exam (ENEM), or through other criteria defined by the Ministry of Education. In addition, the program makes grants available for those of African and indigenous descent, according to the proportion of these populations in their respective states.

Other case we can find in Venezuela, there are national experimental universities, created in order to test forms of government, organization, and function different from autonomous universities, and constituting in principle a particular model and a different form of government. By the year 2001, 16 experimental universities had been created. Each has its own distinctive characteristics and orientation, but it is possible to point out some characteristics that are frequently present in these kinds of institutions. In all of them, the authorities (rector, vice-rector, and secretary) are named by the minister of education or by the president of the republic. In most cases, the institutions themselves propose candidates to the executive branch through an internal voting process in which faculty and students participate. Almost all of the experimental universities are organized by departments and programs, in contrast with the traditional structure of faculties and schools that characterize the autonomous universities. They generally have an executive advisory council, with representatives from sectors outside the university. The function of this group is to formulate policies of development, general supervision, and institutional assessment. Although this is a recent experience, which prevents a definitive analysis, there is no doubt that it represents a notable effort to broaden coverage of Higher Education. It remains to be seen to what extent these experimental institutions meet the problem of quality without affecting the profiles of each.

Good Practices

It is clear that any public policy regarding social or territorial mobility must deeply and multidimensional consider the area of education, as well as to consider with equal care the potential and strategic employment of professionals and academics. Not to do so would involve future declines in social mobility rates and negative balances in territorial mobility. Among the measures to be taken into account, we should consider the following: the strengthening of international cooperation for the generation of skills related to the strategic provision of human resources; the generation of codes of conduct for international protecting and supporting the existence of strategic personnel, particularly in developing countries; the establishment of definitions of priority areas of trained resources in international and assistance policies.

PROPOSAL 9. Strengthen and support regional assessment and accreditation schemes

The first years of the new century were witness to important changes of scale in the processes of assessment and accreditation; changes involving territorial expansion and regional reach.

All of the countries of the region have incorporated assessment and accreditation within their Higher Education policies, and practically all of them have created institutional structures for their implementation. Although this process began at the end of the previous century, it has grown in intensity and importance more recently. On the one hand, the processes have begun in countries in which they did not exist. On the other hand, the entry of older agencies brings with it an accumulation of knowledge of details of the structure of Higher Education that lends new meaning to these processes. Although the procedures, legitimation norms, and organization of assessments and accreditations vary between countries, there is a basic common focus that includes the existence of contextualized self-assessment, external peer assessment, publication of the final report and of the assessment instruments, the generation of information on courses and institutions, and cooperation between agencies for construct development.

Progress has been made in course and degree accreditation leading to regional recognition: in the MERCOSUR, with establishment of the Experimental Course Recognition Mechanism (MEXA); in Central America, with creation of the Central American Accreditation Council (CCA), and in various networks in the areas of engineering, medicine, and agronomy.

The RIACES network (Ibero-American Network for Accreditation of the Quality of Higher Education) has existed since 2003, and carries out activities of cooperation and exchange of information and experiences between areas of assessment. It is progressing toward a differential positioning of the rating of assessment processes, of the entities that carry them out, and the organization of assessment and accreditation systems, agencies, and entities in countries that do not have them.

Undoubtedly, the active existence of these entities of this type throughout the region must aid in the design of a university system of better quality, and contain the potential for also collaborating in more pertinent schemes and greater South-South connections.

Good Practices

It is necessary to expand the active reach of this kind of exercise between countries in the region. In this regard, the activities of RAICES is important, as well as governmental and international support measures for the extension of regional assessment and accreditation schemes on the continent; the creation of channels for circulation of resources that strengthen the abilities of countries in terms of convergence; strengthening of national information systems, as well as consolidation of an effective network for exchange and support for convergence processes; governmental and international support for research and study of the impact of convergence processes.

PROPOSAL 10. Generate skill building and support improvement programs resulting from assessment processes

Greater knowledge of Higher Education systems of the region leads to one conclusion: Latin America possesses an inequitable pattern of quality of the development of Higher Edu-

cation.

For this reason, it was necessary to introduce quality assurance processes continuous improvement objectives of Higher Education as the most appropriate to not modify international standards, but at the same time, to not exclude from the system important factors inherent to it. The Report on Higher Education in Latin America and the Caribbean, 2000-2006 - IESALC (2006) presents the changes that have taken place in assessment and accreditation processes (pp.38-43). Most certainly, the principal driving force of assessment processes is their contribution to raising the general level of training and of academic and institutional development. In this regard, it is vital to remember that Higher Education includes not only universities. The training of technical staff and teacher for primary and secondary education also requires the continued efforts of level setting, assessment, and ongoing analysis of teaching practices and curricula in order that they have a close correspondence to the current and future needs of the respective peoples of the region.

Good Practices

The region needs to arm itself with greater and better abilities to generate improvement strategies that serve particular institutional, local, and national needs, and which at the same time strengthen the position of the region as a whole. One must consider that improvement schemes need support directed at strengthening capacities for the improvement of Higher Education; the identification of common areas of regional improvement in order to achieve institutional synergies and improvement networks; governmental and international assistance for implementation of improvement processes resulting from assessment and accreditation processes; the strengthening of the exchange of information and successful experiences among countries of the region; and support for basic and applied research linked to Higher Education as a object of study.

PROPOSAL 11. Support research for identifying paths toward improvement

Incorporation of the improvement component into assessment and accreditation processes will make it possible to learn about a singular facet, but one that is of great relevance for Higher Education policies: the ability to approach international quality standards, and a better definition of criteria belonging to the respective nation or to the region.

Any exercise that involves the general quality of universities must reconcile itself in one way or another with the diversity of institutions and levels of development. The question is, however, how to void differentiation. In particular, within a context in which the pre-eminence of a competitive focus has generated weaknesses and insufficiencies in a web of relations between institutions of Higher Education that substantially affects the idea of the general and collective improvement of the quality of Higher Education. To this is added the institutional differentiation resulting from expansion of the institutional base of Higher Education, which has been an important factor in the last two decades.

The current focus is based on sooner or later arriving at a group of flexible standards, respecting disciplinary heterogeneity and that, responsive as well to regional differences, points toward growing levels of quality.

As the result of the implementation of assessment and accreditation processes and of more

profound knowledge of the real world of needs within develop institutions and their courses, the academic and professional referents that act as assessors begin to put forward the need to have various groups of standards that take into account the diversity of capacities of institutions, and thus to serve different social needs of training and of appropriate generation of knowledge.

Admittedly, it is not easy to establish categories within the typologies of institutions of Higher Education²⁸ (for example, research universities, training universities, etc.). And it is even more difficult to design flexible assessment and accreditation schemes that are appropriate for these categories and which at the same time allow institutions to change categories with time and as a function of their respective paths. What is clear is the difficulty of establishing appropriate and pertinent designs of development while respecting the categories that are in fact evident.

The other great issue of the beginnings of the century is that international efforts for fostering the introduction of assessment and quality accreditation schemes in the region have not received a correlate effort in terms of support for of such an effort. Moreover, we have seen a change from the historic principle of combined contributions between countries with differential development in pursuit of the general increase of knowledge for formulas of co-responsibility between international agencies, States, and the private sector. These were the major focuses of support in terms of the exchange of knowledge, the creation of interactive systems, mobility of teachers and students, and research projects that have characterized the beginning of the century, although probably as an extension and permanence of the policy of the 1990s.

Good Practices

It is necessary to consider schemes for the mutual strengthening of institutions. Not providing policies that contribute to mutual aid will result in an even greater gap in institutional and regional inequalities.

PROPOSAL 12. Strengthen regional studies related to the dynamic of professional employment

The traditional model of the linkage of universities and their social surroundings is passing through a period of profound changes. The pattern of “university extension”, which historically moulded the type of relations of institutions of Higher Education with social, economic, or political issues within their geographical areas, is being replaced by a notion of more active commitment to local processes.

The social and educational inclusion of future students, the co-responsible efforts of economic units that generate employment and foster local and national development, and the development of an area of critical reflection and the deepening of social and cultural knowledge are at the basis of innumerable projects carried out by institutions of Higher Education and supported by all States of the region.

To this group of initiatives is added the appearance or reconversion toward “enterprising” forms of institutionalization. Universities are coming to be recognized as small and medium

28 Nicolás Bentancur in the second treatment of the theme “Reformas de la Educación Superior en América Latina y el Caribe” of October, 2007, presents various scenarios for public universities that, from another perspective, could be interpreted as typologies of university institutions, and even of Higher Education.

creative companies, able to propose initiatives to society and at the same time to have conditions for face their own problems from an innovative position. With this institutional change we see beginning to develop new relationships with the private sector. This is not limited only to pre-competitive development, but rather revolves around the management of professionals in accordance with specific demands, or what is the same, the appearance of a new form of “made to order” credentialism.

A little-studied effect of the linkage between institutions of Higher Education and companies and State development programs has to do with modification of the historic demarcation between liberal and academic professions. The division between professionals who work in direct contact with “lay persons” (liberal) and those whose principal consumers of goods they produce are peers (academics) begins to blur and be replete with effects that require special policies. This is undoubtedly a subject to be considered on university agendas.

PROPOSAL 13. Strengthen activities leading to regional convergence in on-line education

A heterogeneous mosaic has developed in the region characterized by the near absence of criteria leading to solid training in the use of digital technology. The current challenge for institutions of Higher Education in incorporating new modalities of education requires the development of strategic projects based on clear political, technical, and organizational guidance. We still know little about the need to develop flexible (multi-route) pedagogical models and about the re-engineering that institutions require in order to take advantage of digital technologies. Without them it will be very difficult to produce and offer new content (virtual learning objects) and new curricular models in accordance with digital media.

Treatment of this theme is necessary in the light of the pool of opportunities available.

Various areas of regional cooperation are creating strategies for achieving greater access to resources provided by the new technologies in learning and teaching processes. The IV Ibero-American Conference of Rectors agreed to develop an Ibero-American model for recognizing distance Higher Education, seeking to guarantee that such education be of high quality. The Union of Latin American Universities (UDUAL) has created a Continental Network of Universities and Institutions of Higher Education of Latin America and the Caribbean, with 30 entities with the purpose of facing contemporary challenges such as teaching via the internet. At the II Ibero-American Graduate Seminar, representatives of 20 member institutions agreed to establish shared graduate programs through the use of networks. La Universidad Técnica Particular de Loja has developed an on-line centre in order to unify quality criteria for distance education.

In terms of its use in training, 459 institutions of Higher Education in the region offer some kind of on-line education program. According to the report included in the IESALC document, although there are differences between countries, the move in Latin America toward on-line Higher Education in the strictest sense may be found in the end of the 1990s. This was when the first on-line courses were offered, beginning to offer complete formal academic programs using on-line portals and platforms that, besides using digital information and communication technologies for transmitting teaching content, began to use the technology in administrative services such as enrollment, academic administration, and community

well-being. In some cases, digital libraries have been developed as well as some components of virtual reality (particularly in medicine and in mecatronics) including the development of on-line communities.

It is estimated that the value of the e-learning market in Latin America in 2006 amounted to 500 million dollars, and is still small. Only 4% of the training budgets of Latin American companies with 1,000 or more employees is dedicated to the e-learning modality, while in the United States this figure reaches 28%.

This is a large market, and one that many companies and institutions in Latin America and in other countries wish to take advantage of. Currently, Argentina exports 65% of its offerings, Mexico 32%, Costa Rica 56%, and the rest is relative meagre. The percentages vary greatly between the education sector and companies. Educational institutions export more than 90% of finished courses, while companies of the sector export more than 70% of developments of custom-made content.

Cooperation between companies and universities in e-learning in the region is a relatively recent phenomenon and is not part of a policy that encompasses the entire region.

Good Practices

A serious involvement is required of ministries in developing activities of convergence on a regional scale in the area of on-line education in order to make use of existing advantages.

PROPOSAL 14. Overcome problems of falling behind in investments in technology

In Latin America, investment in information technology is very far behind compared to other regions of the world.

While in the United States, investments in information technology represent 5.25% of the gross domestic product (3.50% for Europe, and 2.49% for Asia); in Latin America it represents only 1.38% of the GDP of the region.

This has an impact on various indicators. According to the IESALC report²⁹:

- The relative internet connection cost for the countries in the region is 145 times more expensive than in Hong Kong; 58 times more expensive than the United States, and 41 times more than in Denmark, Taiwan, Canada, Switzerland, and Germany.
- In terms of bandwidth, or the speed at which connections are established, Bahamas, the country in the region with the best connection, is 44 times slower than Denmark, the highest classified country in terms of connectivity. The difference between Denmark and Brazil is 377 times, Colombia 1,598 times, and Haiti 4,830 times.
- Comparing the average for Latin American countries in terms of infrastructure, the differences with Taiwan, which is the country with the best global rate, the difference is approximately 4 times, and with the Bahamas (the best-classified country in the region), it is nearly double.
- As for internet users, while Iceland (the country with the highest figure) has an average of 65 users per 1,000 inhabitants, Chile (the country in the region with the highest density of

29 *Informe sobre la Educación Superior en América Latina y El Caribe 2000-2005*. (2006). IESALC

users) has an average of only 24. User density in the region is only 15 subscribers per 100 inhabitants.

For education, this means restricted access to videos, sound, flash, movement, inter-activity, and many other possibilities of digital technology.

However, in 2007 witnessed the official launching of the Latin American Network of Education Portals, as well as the RedCLARA within the framework of the ALICE Program co-financed with the European Union. The latter is the first Latin American education and research network, and provides direct connectivity at 155 mp/s; with a “ring” typology that connects the national research and education networks (NREN) of Argentina (RETINA), Brazil (RNP), Chile (REUNA), and Panama and Mexico (CUDI). This Latin American ring will connect at 622 mb/s with the European research network, GÉANT in Madrid, Spain. In addition, the Venezuelan NREN will connect in a ring through at 45 mb/s between Caracas and São Paulo. In the future, the NREN of Uruguay and Paraguay will be connected.

Good Practices

The effort to develop efforts of convergence on a regional scale in the area of on-line education should include activities to improve the amount and direction of investments

PROPOSAL 15. Reduce the internal and external digital gap

The current situation in the region points toward unequal access to new technologies for different social sectors. In this sense, ECLAC warns that the risk of increasing the internal digital gap is greater in Latin America than that of the gap between the region and the developed world.

A number of countries of the region present connectivity figures above those to be expected according to per capita income.

Telephone connectivity for lower income strata is still low, and the cost structure of services is a factor that impedes participation on the internet, both for low income households and for small businesses. The cost of acquiring computer equipment for these potential consumers is high as well.

Moreover, Latin America is seriously behind in terms of the productivity of economies compared to the developed countries. Government support agencies, including the producers of strategic information regarding Higher Education, are not part of a network for strategic decision-making.

The weaknesses discussed above affect universal access to new technologies, the processes for creating a critical mass for digital organization, regional cooperation for the development, consolidation, and sale of high technology products such as computer programs and distance education, as well as the development of networks of a regional scope. Moreover, the fact that policies implemented in countries of the region are notoriously very similar speaks to the influence of particular centres of policy and the lack of incorporation of a local perspective³⁰.

30 La Brecha Digital en Argentina, Chile y Uruguay. Resultados de la aplicación de una metodología de evaluación de la e-readiness y del análisis de las principales políticas en materia de reducción de la Brecha Digital. Carlos Bianco-Fernando Peirano. Documento de Trabajo N°: 22. Septiembre de 2005.

Good Practices

Digitalization and a rapid and appropriate transition toward the era of computer-based production is an urgent need in order for the region to take advantage of new opportunities offered to the world by information and communication technologies.

PROPOSAL 16. Foster studies related to the impact of the new technologies on teaching and learning processes

The XX century left a confused legacy: the significance of the internet in the area of training. Simple computer use does not assume the utilization of new learning technologies.

For example, the so-called “enriched classroom” with internet connection and access to resources within the campus and to external data bases (the “intelligent campus”), as well as “on-line classes” do not significantly change the general conception of a face-to-face classroom.

On the other hand, the use of multi-media and networks for teaching that involves individual treatment of the student or the use a “performance support system” (EPSS) with training modules aimed at specific tasks and within an environment integrated with the work space, does clearly involve a change in the concept of a classroom.

In this regard, according to a comprehensive analysis of the region coordinated by IESALC³¹, it is common that the first series of innovations is used, while much less progress has been made in using the second.

Moving forward in this second line is vital. In this regard, the following are important:

- The impact of the Web 2.0 philosophy in the transformation of continuing, on-line learning processes, and particularly emerging training tools and services based on the development of communities.
- E-learning and the creation of efficacious learning environments.
- New instructional design methodologies, and the growing role of tools such as “media-blogs” and other innovative authoring tools for on-line training, personalization in the development of services, as well as flexible learning spaces.
- Games and simulations as learning support, m-learning, and videos as support for on-line training, and accessibility and quality in e-learning.

This set of actions involves touching upon three inter-related dimensions of planning schemes:

- The translations involved when knowledge content passes through different forms of support.
- The rates of ware of these supports in relation to the properties of the knowledge itself.
- The disruptions that digital technologies cause, considering their extensive use in mass dissemination schemes of Higher Education offerings.
- Renovation rates characteristic of the area of microelectronics (for a chip of a particular velocity, its price falls by half every 18 months).

The Virtual University of the Technological Institute of Advanced Studies of Monterrey

31 *Informe sobre la Educación Superior en América Latina y El Caribe 2000-2005* (2006) IESALC.

has carried out activities in companies, especially through its Virtual Business Class program (AVE). Founded in 1989, it has 1,430 receiving stations - 1,270 in Mexico, and 160 in 10 Latin American countries. The Public Virtual University of Brazil is a consortium of 82 public institutions of Higher Education created in 1999 with the major purpose of increasing access to advanced training through distance offerings at the undergraduate, graduate, and extension levels. The Quilmes Virtual University of Argentina has carried out significant activities in e-learning since 1999, and may be extended in the future with the cooperation of universities and companies in on-going education. "E-Learning Venezuela, which includes activities of coordination and cooperation in the area of virtual learning, with the participation of companies, universities, and other organizations.

Nevertheless, one sees more than ever the tension that is produced between the replicable nature of digital information and the idea of selling it, in the light, particularly, of its net-like structure (given that this format increases the amount of information available).

Good Practices

Access to, acquisition, and development of supports are added to the historic themes of relevance for Higher Education such as the exchange of information and the development and transmission of knowledge. These make up part of an inescapable trilogy when establishing any advanced training policy.

PROPOSAL 17. Improve the management of institutions of Higher Education

Between 1998 and 2002, public spending in Latin America on Higher Education was 0.87% of GDP, a figure that has remained practically constant and that is markedly less than that of developed countries. In the United States, investment is fifteen to eighteen thousand dollars per-student. In the region, it is an average of US\$700.

In principle, one might say that efficiency has increased, with enrolments increasing and the GDP percentage unchanged.

However, in a Delphi study carried out by GUNI³² a consensus emerges among respondents regarding the lack of efficient means of resource allocation in Latin America. The causes cited are: a) the predominance of economic over social policies; b) the absence of governmental policies for financing Higher Education, science, and technology that would permit long-range planning for the goals and commitments of public universities; c) the long-term setting aside of public Higher Education, science, and technology as government priorities; d) lack of a tradition of local private initiative for financing public universities; e) a growing trend, within both federal and state policy, toward education services provided by private initiative, the quality of which is questionable and poorly supervised; f) the lack of a system of student credit sponsored by the State that facilitates access to private or public Higher Education; g) lack of fiscal incentives that allow greater access to technology, equipment, bibliographies, or other resources that foster university improvement.

These commentaries need to be supplemented with others related to the internal efficiency of these institutions. The IESALC³³ shows that, for the year 2007, administrators made up between

32 GUNI. *La Educación Superior en el Mundo 2006: la financiación de la universidades*. (2007).

33 *El Informe sobre la Educación Superior en América Latina y El Caribe 2000-2005*. (2006) IESALC.

30% and 40% of the total university staff. That is, for every 10 employees, between 3 and 4 were administrative. The report also notes that, besides the difficulties in defining optimum criteria for determining the ratio of teaching and non-teaching personnel (and this would vary depending on the characteristics of each institution), it is clear that in recent years, changes in computerization of administrative processes should have contributed to changing these proportions.

Another aspect worth considering is the impact of assessment and accreditation processes. The instruments linked to these processes are often markedly exhaustive in terms of the demands of information. Institutions have developed abilities to complete forms, and with the passage of time and due to the periodic nature that these processes usually have, they have been incorporated into university management systems.

Nevertheless, all of the comments of specialist regarding this issue point toward the weakness of aggregate information systems.

Good Practices

States must make use of institutional efforts in terms of information, for strategic decision-making of the region.

PROPOSAL 18. Strengthen the coordination of efforts carried by out various entities related to Higher Education.

On another managerial level, one notes the presence of new legal figures within the framework of greater institutional complexity and of the dynamics of the negotiation and building of more complex consensus.

Moreover, the increase in the institutional base of Higher Education has brought with it the appearance of new types of institutions.

Due probably to the multiplicity of subjects on university agendas and the centrality that a restrictive financial context has assumed, universities have continued to create rectors associations and similar institutions. Although in some cases such institutions have a long history, most of them have been created since the 1990s. Moreover, they have taken on new roles in the regulation of education or in the establishment of consensus in negotiation processes with governments.

Thus, increasingly, both ministerial bodies as well as assessment agencies have begun to assume regulatory roles and commitments, particularly associated with the dynamic of the internationalization of Higher Education.

Good Practices

It is vital that efforts be carried out in the coordination and cooperation of a diversity of forces in order to create a synergy of singular capacities possessed by entities linked to the activities of Higher Education.

PROPOSAL 19. Support the efforts of institutions of Higher Education in regard to social commitment

Although the growing complexity of institutional financing and the imperatives of formulas of internal efficiency constitute important themes on the agenda of Higher Education, probably the most important managerial efforts of Latin American institutions lie in the area of their social commitment.

An examination of various university web sites, institutional assessment reports, and summaries of projects linked to development promotion entities makes evident the unparalleled effort of a facet of institutions of Higher Education not very noted in recent times: their activities in the promotion and preservation of local culture and their commitment to social development.

These consist of initiatives that reassess the link between man, his place, and the development of both. In this sense, the multiplication of experiences in fostering local development that can be seen in all of Latin America in this last decade demonstrate the progress of this focus on development which emphasizes the question of territory and the importance of local areas as a reference for the formulation of public policies and social initiatives.

It is clear that for the countries of the region, as well as for the other emerging economies, the imperatives of the improvement of management, as well as good practices relate to it call for a reassessment of meaning in terms of the five-fold dimension: teaching, research, extension, management, and social commitment.

Good Practices

It is necessary to create an inventory of experiences in the area of the social commitment of institutions of Higher Education, as well as specific lines of financing for this effort.

PROPOSAL 20. Reduce the spending of the poor on private education

Families make a significant economic effort, expressed in payments for Higher Education and the opportunity costs of time spent in study.

While average incomes in constant prices have remained almost stable, enrolments costs for Higher Education have more than doubled in the period. This illustrates the sacrifice of family income as a result of the change in the household consumption patterns and a greater propensity to spend on education.

As occurs in various developed countries (in which half or more of the total resources of institutions come from self-generation of income), in some countries, such as Peru and Chile, a significant share of resources (between 60% and 70%) is generated by the institutions themselves, whether through charging tuition and fees to students and their families, interest on investments, sale of assets, donations and trusts, the sale of services, income from licenses and royalties, and research contracts.

The precarious nature of employment and uncertainty regarding the sustainability of labour are also results of current globalization that leads people to increase their years of schooling and increase tertiary studies as a defence mechanism and strategy for household survival.

Good practices

It is necessary that, within the framework of strategic definitions, attention be given to

the particularities of institutions and of the regions in which they are located. On occasion, the cultural corridors between two or more regions cross national limits. An example is the Andean zone, which embraces vast areas of various countries of the region. In regard to such cases, special facilities should be created.

PROPOSAL 21. Take advantage of Higher Education networks in order to improve territorial coverage

Although the rapid territorial expansion motivated by the massification of Higher Education constitutes one of the reasons for variations in institutional quality, the differential use of the broad network of “sites” contributes with the implementation of policy instruments that has begun recently in most countries of the region.

Institutional strengthening of the regions is an important factor in current exercise of public policy, and more specifically in the alternatives for achieving the efficacy of these policies.

Quality improvement by taking advantage of diverse capacities presented in the networks in which institutions of Higher Education are involved represents an important contribution for this purpose.

Functional interdependence between parts of a shared training structure offers advantages for improving global legitimization on the international plane, and to thus increase the possibilities for taking advantage of the new internationalization and to preserve the structure from the adverse effects of such internationalization.

There are some promising facts in this regard:

- The expansion of Higher Education in the region has been accompanied by a parallel sustained demand for highly-qualified persons and a significant salary premium for graduates.
- The response to new demands of access by the population has made possible the inclusion of highly marginalized sectors such as indigenous groups and other minorities such as those with disabilities and migrants.

PROPOSAL 22. Strengthen governmental policies

The need is clear for developing capacities for the design and implementation of complex policy instruments, such as those related to Higher Education.

Among them are:

1. Strengthening public policies as a central feature for attaining the visions established in the World Declaration of 1998.
2. The commitment of Higher Education in regard to reducing structural vulnerabilities, risk factors, and their contexts.
3. Strengthening of legislative, administrative, or policy measures on the part of States for the control of Higher Education trans-nationalization practices.
4. The sovereign rights of States in regard to:

- a. Recognizing the qualifications of professionals who work in their territories.
- b. Limiting recognition of foreign qualifications to those institutions whose States have signed the World Declaration on Higher Education.
- c. Requesting from accrediting agencies of the States in which institutions offering international education services are based opinions regarding the quality of their offerings.

Good Practices

- The existence of financing directed at the strengthening of governmental units and institutions is vital. During the coming decade, Higher Education will require a broad base of professional specialists. It is especially important to have access to training in developed countries. In the region, convergence capacities should be strengthened.
- The problems of a lack of pertinent and accessible information affect policy formulation. In this regard, it is important that the generators of information do so in an articulated manner in order to assure the compatibility of information bases. Moreover, information very rarely satisfies the needs of users. It is important that those who prepare and publish information systematically study the community of users – among them, decision-makers and planners. In this sense, of great importance are inventories, data bases, and networks through which information is obtained.
- Although research in Higher Education has increased substantially in the last two decades, the measures to be implemented surpass the current capacity for research. It is necessary to increase the volume of financing for research in Higher Education - particularly short and long-term research on the links between Higher Education and economic development, but also on the preservation of culture and criticisms of contemporary events.
- Although on the regional and country levels there has been little progress in common or individual positions regarding new changes in Higher Education, with the reforms that have begun in countries of the region, in various small sectors, and even entire institutions have anticipated coming strategic challenges and have carried out strategies to lend new meaning to these new rules of the game for the endogenous development of the region. Micro-regulations, the means, and the persuasive power possessed by these strategies should be seen as an accumulation of contributory instruments for research, the generation of information, and the formulation of new public policies.

PROPOSAL 23. Strengthen capacity in terms of international relations

The initial years of the century witnessed the creation and strengthening of the role of associations and networks between countries of the region, and of these with others in the world.

Networks are essential channels for cooperation in its multiple facets. They have gained singular importance due to the fact that they respond to the need to share information and experiences, generate responses to the demands of countries and institutions, and foster channels for the latter to interact with different entities in the international sphere.

Their existence and development is of special interest in light of the complexity of international relations. While globalizing forces produce a gradual weakening of territorial limits, development of the global economic system requires an organizational and social venue able

to provide a series of specialized activities and services, and in which Higher Education has a singular role. The sub-national territory – at any of its levels, and with its set of institutions – thus becomes a new actor of development, and “para-diplomacy” acquires a unique scope. For institutions, this means bringing together abilities in terms of internationalization strategies.

While, in contrast to what happens in other sectors, that of Higher Education has been characterized by the early presence of forms of decentralized cooperation (organized to a lesser or greater extent using traditional managerial formulas between countries), there is no doubt that currently, the direct participation of institutions in networks and in international cooperation systems is of importance.

The document, “Processes of integration, international cooperation, establishment of university networks and associations, internationalization processes of Higher Education, and the brain drain in Latin America and the Caribbean”, 2007, by Maribel Duriez González, presents a detailed account of agreements, associations, and networks linked to Higher Education.

The activities involved in the new phenomena of the growing commitment of institutions with local areas in diverse facets of advanced training and research and development, and, at the other extreme, of the growing incidence of globalized training formulas through the facilities offered to them by the new technologies, lead to the design of cautious policies in the international context, both in relation to multi-lateral agencies and to aspects of cooperation.

In this regard, the beginning of the century – as probably in no other period - presents a profoundly diverse picture in terms of differential channels of cooperation and of multi-lateral, regional, and bi-national negotiation: regional accreditation; discussions regarding the inclusion of Higher Education in the WTO; the various programs related to experiments in mutual recognition of training tracks; formulas for financial co-responsibility in cooperation, among others, attest to the complexity of the international aspects of Higher Education.

PROPOSAL 24. Make development aid a factor for strengthening Higher Education

Development assistance can play an important role, directly supporting the task of strengthening Higher Education.

In this regard, development assistance agencies should create assessments of the repercussions of Higher Education projects, dedicate funds to put into place programs dealing with the priorities expressed in the World Declaration on Higher Education, develop technical experience and strategic positions in light of these priority actions, and assure that all sectors have among their objectives the strengthening of Higher Education.

PROPOSAL 25. Strengthen the international legal framework related to Higher Education

The World Declaration on Higher Education is an important reference for carrying out cooperative activities between nations. Thus, many treaties and regional and bi-lateral agreements make reference to Higher Education. However, many of these should be re-

vised and linked to the declaration. Moreover, it is necessary that the declaration become a convention to be ratified by law by the various States involved. Transnational education, the on-line modalities of Higher Education, and the mutual recognition of accreditation and degrees must be priority themes when considering multi-lateral treaties and bi-lateral agreements.

Post script

The existence of gaps in theory and conception in regard to important aspects of Higher Education when formulating public policies lead to the need to expressly foster attention to Higher Education on the part of various disciplines, thus contributing to provide a balance to the current dominant concern on administration and economics, as well as to call attention to the specific treatment of the diversity of contexts within which institutions of Higher Education and their communities develop.

Thought on the development of Higher Education in Latin America has as a significant feature the pre-eminence of an “economicist” perspective and the central concern for two key principles:

- The market.
- The interpretation and re-interpretation of the crisis of institutions of Higher Education (and in particular universities).

In this regard, there are some notions that enjoy wide consensus and that outline the basic profile of the current state of political thought on the development of Higher Education in Latin America.

Although over the years it has been enriched, the dominant analytic perspective is being increasingly overcome by various large problems that have emerged that merit appropriate analysis. Countless events clearly illustrate the need for a renewed vision of Higher Education in Latin America.

The catalogue of predominant ideas

From the relation that universities established with the crown, the papacy, and the city in the XII century, up to the sophisticated mechanisms of transnationalization of Higher Education, including the appearance of the notion of the “Higher Education industry” in the framework of the WTO, institutions of Higher Education have been involved in an environment characterized by social necessity, questions of supply and demand, and cross-cutting economic interests.

Since Smith, this analytic dimension has been treated by various authors from diverse schools of thought, as J.J. Bruner shows in the recent work “University markets. New scenarios for Higher Education” (2007). Thus, as this author also points out, this perspective has become a locus of international debate regarding the current trends of Higher Education, its future development, and about policies for this level of education.

Of particular interest, however, is the practically unanimous consensus to focus the analysis of Higher Education around the concepts of this discipline, and thus to focus its development around two key mechanisms. The first is the change of paradigm toward market-based

development. The second is the interpretation of the crisis of Higher Education, particular the complex process of interpreting and re-interpreting the relations between the State and Higher Education.³⁴

The change of paradigm toward development based on the market was part of a broader transformation of political thought on the development of Higher Education in a sense contrary to the State indulgence that had prevailed in Latin America up to the end of the 1980s.

Among the concepts that enjoy wide consensus with this market focus and beyond the different positions in this regard, are:

- Human capital in regard to the inter-relation between Higher Education and businesses, the incorporation of business practices in institutional management, the enterprising role of institutions in regard to development of their surroundings, the effects that would produce on academic research a growing utilitarian orientation, and greater or lesser autonomy in face of a growing financial base;
- Standardization of Higher Education practices, particularly in regard to the internationalization of academic habits at the institutional level, and to the convergences of undergraduate and graduate programs (credits and mutual recognition);
- Growing connection of local markets, and in particular in its relation with the international mobility of students and exchange, and the interaction between academics and researchers from different parts of the world through increasingly flexible and interwoven global networks, as well as the impact of new technologies and prestige markets on the rates and directions of these relations;
- Translations that take place in the passage of content through different forms of support (both human and technological), as well as the rate of wear of these supports in relation to the properties of knowledge per se;
- Individual and social benefits of Higher Education;
- Higher Education training as a public good, and its relation to the points mentioned above.

In regard to the second analytic mechanism based on interpretations related to the crisis of Higher Education in light of new links to States, an approach that enjoys wide consensus is that of the State as regulator, on the one hand, and the passage of the regulating State, on the one hand, to one of the State as bureaucratic control and promoter of self-regulation and competition, on the other. To these a third relation must necessarily be added: that of passage of the indulgent State to one of bureaucratic control. Thus, whatever is the state or passage one observes, the question of financing acquires special significance – or more precisely, aspects of public policy and of institutions in order to achieve the objective of shared financing between the government, on the one hand, and students and their families on the other.

An additional fact is that there are practically no Latin American interpretations beyond the application of these concepts and relations. In this regard, Brunner notes:

(...) maintaining its centre of gravity in the Anglo Saxon countries, the field of

³⁴ One notes the incredible parallel of this posture with that expressed by numerous economic analysts. For this reason, the paragraphs that are offered here attempt to bring together the contributions of these perspectives, in particular the document. *El desarrollo económico en América Latina: grandes problemas emergentes, respuestas políticas limitadas* written by Augusto de la Torre, Juan Carlos Gozzi y Sergio L. Schmukler. In: José Luis Machinea y Narcís Serra (2007). *Visiones del desarrollo en América Latina*. CEPAL.

Higher Education studies grows both from the thematic perspective as well as in terms of its practitioners, who now come from such disparate places as Holland and Hong Kong, or Brazil and South Africa. As C. Garcia has noted, the section of the Encyclopedia of Higher Education dedicated to analysing the different disciplinary perspectives that converge into the study of Higher Education – which we have cited above – although containing more than one thousand bibliographic references, only 20 come from titles published in languages other than English: 13 in German, 3 in French, 3 in Russian, and 1 in Italian. Among the authors of these sections, none is from Latin America.

Individual and social benefits, the sustainability of Higher Education based on questions of finance, the risk and uncertainty of the process of choosing career paths on the part of students, the brain drain effect, the supply of graduates, all have gained ground on analytic perspectives such as the dignity of inquiry, the creative power of learning, the intrinsic essence of science, and the existence of the university in culture.

It is understandable that in the practice of public policy or of finance, market considerations are basic components, considering the practices disseminated. And it is understandable that these practices penetrate analyses of the relations of the State and Higher Education. What is less understandable is the undisciplinarity that is the source through which to conceive such financing policies or perspectives.

Also of note is the speed with which this erosion has occurred. One need only recall the disciplinary approaches to education to which Clark referred in 1980: historiography, political science, economics, the organizational focus; sociology, anthropology of academic culture; study of the implementation of public policies in this sector, the approach of those who studied the academic systems of the sciences, law, philosophy, literature, political economy, public administration, social psychology, and studies of this type.

Some proof of the insufficiencies of the predominant perspective

Although various chapters would be needed in order to delve into the need to renew the analytic vision of Latin American Higher Education, merely in order to provide a basis for its treatment at the next World Conference on Higher Education, we offer here some questions that, in principle, do not fit particularly well into the analytic framework of economic theory, but that are often presented when outlining public policies.

Computerization, beyond the greater or lesser advantages of its use by institutions of Higher Education, is present in innumerable daily activities, and is constantly changing in terms of its media. From Web1 to Web2; from post to blog; among so many others. From an Aristotelian perspective, where the virtual is not real. Nevertheless, considering the changes taking place, it is more correct to ask oneself regarding what kind of reality is “virtuality” and how this will affect professional activity within 20 years. As an example, super-specialization leads to the existence of problems of application in the real world of the professions, as for example in a clinic of in primary care for physicians, in extension for agronomists, among others. Features linked to on-line computer use, such as, for example, the tendency to make rapid decisions, and rapid reversals (just by typing “esc”). What impact will they have on professional development? And the representations used on a computer platform, how close or

how far are they from every day professional activity? And haptic systems: will they enrich the approach to problems? What is certain is that institutions of Higher Education will increasingly receive generations imbued with the new practices and habits of computer use and which, in their turn, will be increasingly digital, more mobile, and of greater scope. Undoubtedly, analyses in regard to these questions are important when developing a variety of public policies.

The massification and social commitment of Higher Education have led to the creation of special training areas in regions of high social risk. Moreover, institutions have students from these kinds of home and working environments. The truth is that entire States suffer from the problems of social risk and of violence. This is a fact. Questions linked to these occurrences face many barriers: fear, organization of time, problems in recruiting teachers, living with armed security personnel, situations for which there are no established procedures, multiple perspectives regarding the value of life and of death, the approach of different rules, and, on some occasions, the undervaluing of technological development on the part of the institutions in the light of highly sophisticated technologies used, for example, by groups such as drug traffickers. The proposals are usually unidirectional (of help or support) and their treatment is on the level of principles. The fact is that this kind of situation is increasingly frequent in the world. Consequently, more specific definitions are required.

These examples are far from covering the quantity of events that need analysis that go beyond the theoretical platform of the economy and that present themselves in public policy decisions on the training of people.

3. Conclusion

We have attempted above to present a contribution for the discussion of the Ministers of Education of the countries of Latin America at the next World Conference of Higher Education, doing so from a singular perspective: the transformations that are underway, or more strictly, emerging themes of current public policy agendas of Latin American Higher Education.

The region has the double imperative of developing alternatives within the framework of recent policy changes, and of developing appropriate mechanisms for achieving results outlined by these policies. In this sense, the arguments that were presented aim at outlining specific features of the region as a contribution to world discussion.

It is clear that profound debate will be needed regarding a series of changes that have begun, that bring into greater focus the phenomena of transnationalization, and that profoundly impact the development of the Higher Education systems of the world. In this regard, the set of themes proposed approaches some topics from the perspective of the region.

As a postscript, we have noted the need of a renewed perspective in the analysis of general Higher Education, in this case in terms of some challenges facing Latin America. This, of course, does not mean leaving aside the important issues mentioned in the declaration of 1998, but rather to look at them as well from a renewed perspective.

A single principle runs through all of the actions proposed: **the intrinsic value of the**

diversity of the areas of advanced training and of the social, economic, scientific, and cultural values associates with this diversity. This is our Latin American contribution to the new preamble of the World Declaration of Higher Education for the next decennium.

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Chapter 8

HIGHER EDUCATION ACCREDITATION AND ASSESSMENT SYSTEMS IN LATIN AMERICA AND THE CARIBBEAN

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1. A look at the past

By the beginning of the 1970s, a number of Latin American countries had already introduced the theme of quality in their Higher Education reform proposals¹. However, the theme of assessment only was placed on the agenda of countries in the middle of the 1990s, as a result of two complementary phenomena: on the one hand, the increase of demand for Higher Education, and on the other, the development of a business-oriented private sector. The increase in demand is associated with the success of programs for developing primary and secondary education, together with growing complexity of the productive sector. But inevitable, this greater demand meant changing the selective and elitist model of Latin American Higher Education for a more inclusive perspective, associated with a student population with fewer economic and cultural resources. At the same time, the incorporation of new private providers generated in most countries a strong questioning of the legitimacy and quality of significant parts of Higher Education offerings. Later, at the beginning of the current decade, the accreditation² theme appeared as a generalized concern in the entire region, including the Caribbean. Lamaitre (2007) sees it as “*a consequence of the central position that Higher Education has acquired within the framework of what we tend to call the knowledge society or the information era, and its role as an essential component of national development.*”

The above does not exclude the presence of two different visions: the first, subordinated to productivist concepts, that leans toward the unification of models and policies in the ambit of the international community, and a second that defends the identity of national systems and their correspondence with social and political organization, or in other terms, with the history of each country.

In general, it is the second view that prevails in Latin America, with an emphasis on the importance of developing national models and to focus quality assurance processes on national agencies as well. However, one cannot disregard the fact that this national emphasis is strongly associated with the search for integrating arrangements in which national agencies commit themselves to certain regional objectives in order to arrive at processes of mutual recognition. This is the case, for example, of the MERCOSUR where, through a pact on standards and procedures, agreements were arrived at for the mutual recognition of accredited courses. In Central America, together with fostering the creation and development of national agencies, specialized regional ones are being created, with all of them – national and regional – accredited by a regional agency.

It is particularly interesting to note that these efforts began before the Bologna agreement, and that they follow a similar logic in terms of seeking the harmonization of criteria and the creation of conditions for academic mobility, and that they do so in a much more difficult context, given the absence of a political agreement similar to that of the European Union. Moreover, the creation of the European block and the establishment of the Bologna process has given these Latin American initiatives a boost and their own legitimacy that is now recognized in regional and world contexts due to their capacity and flexibility to reconcile the search

1 Ver Trindade, H.

2 According to Dias Sobrinho (2007, document annexed to this publication), accreditation refers to a process for controlling and guaranteeing the quality of Higher Education, and thus involves inspection, assessment, or both, as a result of which it is recognized that an institution or its programs satisfy minimum acceptable standards.

for identity and the autonomy of different national systems and models under a integrationist vision at the sub-regional and regional levels.

It is undeniable that to date, a tradition of assessment and accreditation has not been developed in many countries of the region, in spite of excellent assessment and accreditation programs in specific countries or sectors. Although the consolidation of models and experiences of assessment and accreditation is very diverse, in general there is a strong trend toward an option toward complex quality assurance systems that involve processes of licensing (or authorization of new institutions), of assessment, of accreditation, or of academic auditing. These processes apply to new institutions or courses, and to students, programs, and institutions in a wide range that makes the Latin American experience worthy of careful analysis.

In terms of the development and strengthening of Higher Education systems, the importance of assessment and accreditation processes lies in their being strategic instruments for strengthening: a) the formulation and implementation of public policies in Higher Education at national and regional levels; b) the growing quality of national systems of Higher Education, and their recognition by both domestic communities and by other countries; c) policies committed to the increase of quality and scientific production, considering that in the Latin American and Caribbean region, most of this production is concentrated in institutions of Higher Education and research, above all associated with graduate programs; d) the possibility of creating parameters for mutual legitimacy between national systems, and as a result, of establishing bases for comparability that make it possible to discuss securely and transparently questions such as the recognition of degrees and accreditation; and e) the establishment of programs for the mobility of teachers, students, and professionals.

2. Assessment: concepts, models, applications, social functions, and distortions

Assuring the quality of education is an integrating concept that includes the actions of different actors in an attempt to improve and foster the quality of Higher Education. Thus, it includes internal quality improvement processes developed by the institutions themselves, and carried out by government authorities using policy instruments to this end. The work of quality assurance agencies and the associated activities are developed through other social actors.

The major distinction usually made is that between internal processes (generated and applied by the institutions themselves) and external processes that are more commonly associated with licensing, assessment, or accreditation.

In the case of external processes, these tend to be grouped according to the ends sought. If the major purpose is to control quality; that is, to assure that institutions only operate if they satisfy minimum quality criteria, the instrument utilized is licensing, i.e., the authorization and recognition of institutions courses, or programs. If what one seeks is to guarantee the quality of an institution or of a program, the most appropriate instrument is accreditation, through which one verifies the fulfilment of certain publically recognized standards or criteria.

On the other hand, if the principal purpose is the development of processes of continuous improvement of institutions, their courses and programs, the main instrument is academic auditing focusing on the assessment of internal quality assurance processes. In all of these cases, internal assessment (or self-assessment) is used as a base, and external assessment as a

verification mechanism³. However, the relative weight of both processes is different in each case: licensing emphasizes external assessment, while in the case of accreditation, both are equally important, and in auditing, internal assessment has a preponderant importance. All of these processes tend to be contained in some national quality assessment Higher Education macro policies of the region, and in some of them in an integrated fashion through quality control carried out at all levels of teaching. On the other hand, although in the majority of cases the initiative for the development of quality assurance processes has appeared through public policies or government agencies, in practice each country has been able to discover and arrangement or arrangements that are the most appropriate for the conditions under which their Higher Education systems have developed.

Understanding assessment of the quality of education as a social phenomenon, as Stubrin⁴ notes, and not as reduced specifically to the conception and application of a set of technical tools and procedures, requires of actors an understanding of their places in society, of their expectations, forms of commitment, and of a balanced combination between factors and parameters of a quantitative and qualitative nature. Evidently, the expansion of national systems, the massification of the supply of places in universities, above all at the undergraduate level, and moreover, the construction of bases for internal and external comparability of countries, tend to strengthen the first option as a guarantee of implementation and feasibility of the process in the short and medium terms. In this sense, it is appropriate for countries that have more developed and consolidated systems, such as the cases of Argentina, Brazil, Colombia, and Mexico, to exercise an historic role in the formulation and execution of public Higher Education policies in the region.

It is true that the expansion and consequent increasing complexity of education systems has led countries and institutions to a search for alternatives for constant improvement of assessment processes and procedures, making its dynamic increasingly complex and difficult to manage, both for governments and for the institutions themselves. As Janine Ribeiro observes, in order to respond to this difficulty, one may resort to “*a simplified assessment system which takes into account fundamental points, and not a plethora of data that can be redundant*”.

Another extremely important point of discussion regarding the theme of the assessment of Higher Education has to do with the distinction between policies, mechanisms, criteria, and procedures applicable to undergraduate and graduate programs as different parts of the same system⁵. Most countries of the region do so in a disparate fashion, in parallel and reciprocally illegible, from the normative to the most pragmatic aspects. There is no lack of justifications used to explain this, both from the strictly historical perspective as well as from the point of view of their specific functioning, whether because governments, agencies, and institutions have assumed the task in a disparate fashion, or because the divorce of such assessment policies and practices is to the interest of sectors traditionally committed to one or another level, without granting importance that such an option represents in terms of the weakening and disintegration of the education system. Nevertheless, it is important to note the trend toward the search for mechanisms of integration, of dialogue, or exchange between both levels in the field of assessment, principally because the impact of expansion and massification has already

3 RIACES has developed a glossary that aids in understanding the meaning associated with each of these terms, and which may be consulted at: www.riaces.net/glosario.

4 Stubrin, A. (2008). Importancia de la noción de calidad en educación superior y de su evaluación para la cooperación e integración regional, UNESCO-IESALC [document annexed to this publication].

5 See Pires, S.

reached the graduate level – a fact that, in a sense, brings about an approximation of the respective realities. Although historically, they were created in an independent fashion, undergraduate and graduate programs and activities are part of the same system and present constant needs of change, improvement, and adaptation to new internal and external institutional contexts which apply as well to their respective processes of assessment and accreditation.

Apart from the increased complexity discussed above, there is a tendency for different levels of the same education system to, either partially or wholly, exercise overlapping roles and functions. This provokes, on the one hand, an unnecessary and perverse overload of involved actors, and on the other, chaotic functioning of the system with its purposes lost among each other. The effects are inevitable, and vary from demotivation, to a gradual loss of the commitments of actors to assessment processes and finally to the paralysis of the system and of its capacity to fulfil its ultimate purpose; that is, fostering the quality of education systems. For this reason, the most successful experiences involve the exercise of complementary roles and functions by different actors: the state, public or private agencies, and institutions of Higher Education. Similarly, as Trebino notes, good practices include “*the intervention of committees of assessment peers*” as a form of legitimating the external assessment process “*from within university institutions*”.⁶

At the same time, one must recognize the efforts of countries and institutions still in the consolidation phase of their Higher Education policies to establish and consolidate their assessment systems, seeking a unique identity without discarding the possibility of incorporating the experiences of other countries, both in Latin America as well as in other regions. Among such countries are Bolivia, Costa Rica, Ecuador, Paraguay, Uruguay, a large part of the Caribbean and Central America, and Venezuela, among others.

In treating this theme, Ali (2008) points to the need to construct alliances in the field of research policies and Higher Education as a strategy for maximizing the efficacy of its implementation, and to thus avoid duplication of efforts. The author⁷ cites the existence of the Caribbean Higher Education Assessment System that was created during recent decades, and that is composed of a network of entities, viz.: ministries, state companies and specialized departments; financing agencies, international organizations, external quality assurance agencies, universities or their networks/associations, and institutions of higher/tertiary education. The role of such a system is to guarantee the public validity of its good organization, as well as to objectively define mechanisms for accountability, transparency, and reliability of the actors who are part of the system.

Within this framework, one notes a significant increase in the exchange of experiences and practices in the field of assessment, both on the governmental and institutional levels, as embodied in technical cooperation agreements, and mobility programs of specialists and academics, especially those linked to networks, chairs dedicated to the theme, and regional integration projects carried out by different organizations (public or private, regional or international, etc.). Still in their beginnings are academic, scientific, and technical cooperation projects between Latin American and Caribbean countries, especially the English and French speaking Caribbean. Consequently, it must be recognized that this distancing of Higher Education and science and technology policies represents a serious impediment to the aspirations of integration of our region.

For systems in the phase of expansion and development, different forms of exchange pres-

6 See: Trebino, H.

7 *Op. cit.*

ent valuable opportunities in terms of optimizing time, of training of qualified human resources, of the making options of parameters and indicators; in short, for the national development policies. On the other hand, regarding countries in advanced phases of consolidation of their systems, contrary to what might be supposed, such exchange, besides fostering re-discussion and revision of their policies in a broader context, provides the possibility of constructing a shared vision leading to a regionally integrated assessment system and concomitantly established on the recognition of different national and local realities and interests.

3. Accreditation: diversification of model, applications, and distortions

As noted above, most countries have experienced substantial increments in post-secondary⁸, and principally university, enrolments associated with the creation of new institutions of Higher Education and the inclusion of new providers⁹. Although coverage levels are still very disparate and lower than in developed countries, there has undoubtedly been significant progress.

To this it is necessary to add the requirements of internationalization that come both from the demands of the productive sector as well as from the efforts of respective governments which on various occasions have emphasized its importance for the development of Latin American countries. The growing development of transnational offerings of Higher Education from both Europe and the United States, as well as from Latin American countries are also an important component when attempting to identify the elements that influence the development of different levels of quality assurance.

However, the growth of systems of Higher Education, the proliferation of institutions, the increase in enrolments, the diversification of programs and institutions, and the incursion of trans-national offerings have eroded social confidence in Higher Education, or at least the need has become evident to have reliable mechanisms for assuring their quality.

The answer appears through the generation of quality assurance processes, in their roles of generating trust and to legitimate themselves both socially and academically. This legitimacy tends to be associated with various factors:

- **Broad participation.** This is not the case of processes designed from a bureaucratic perspective, but rather of mechanisms that respond to the needs and the interests of a broad range of social actors, among which are various academic entities, representatives of public and private management of education, as well as disciplinary, professional, and union associations.
- **Presumption of academic control.** In order to be recognized and accepted, assessment should reflect an academic perspective, expressed through the design of criteria and standards and the management of assessment processes. The participation of various sectors is important, as is also that of assuring at all times that an academic and educational vision is what guides the assessment process.
- **Independence of agencies from governments, institutions of Higher Education, and other pressures or interests.** Assessment always involves an asymmetrical relationship between

8 Between 1975 and 2005, enrolments multiplied in Ibero-America by nearly four times, reaching the figure of 16 million students (cf. Brunner, J.J.).

9 In the middle of the last century, there were 75 universities in Latin America, a number that Grez to nearly 850 by 1995 (a time when there were some 4,600 non-university institutions of Higher Education). Currently, Ibero-America has approximately ten thousand institutions of Higher Education, of which one-third are universities (cf. Brunner, J.J., *op.cit.* p.73).

those who carry out assessments and those assessed. Therefore, it is vital to assure that defined criteria are applied with complete independence from outside interests or pressures. The independence of the agencies and of their personnel in regard to political, institutional, or corporative interests is a central element in their credibility.

- Emphasis on the autonomy and responsibility of institutions of Higher Education. Quality is an essential responsibility of the institutions of Higher Education themselves, and quality assurance processes should always be organized in order to foster and support the permanent commitment of institutions to their continual improvement. If not a culture of obedience will be fostered that may be useful in the short (and at times, very short) run, but which does not generate the necessary conditions for effective self-regulation.
- Openness to regional and international media. Quality assurance processes are not exhausted within local surroundings. Higher Education has a tradition of internationalization that goes back to its origins, in spite of which it also has a tendency toward a dangerous shutting off to the outside. Openness to the concerns and challenges of Higher Education in and outside the region make it possible to adopt a broad perspective for defining quality criteria and for applying them to different levels of training.

Accreditation systems follow different regimens, particularly in terms of their dependence. In effect, there are agencies that are public, but autonomous in regard to the government, as in the cases of Colombia, Chile, Ecuador, Peru, and Puerto Rico; governmental (Argentina, Bolivia, Brazil, Colombia, Cuba, Mexico, the Dominican Republic, and Uruguay); private (Chile, Panama, and Puerto Rico); or dependencies of institutions of Higher Education (Bolivia, Costa Rica, Panama, Peru, the Dominican Republic, and Uruguay). In various cases, as can be noted from the above list, various alternatives exist within the same country.

The recent and rapid expansion of accreditation processes and mechanisms can be illustrated by the fact that, from the six to eight countries with quality assurance processes in 1991, the number has grown to more than 120 agencies that are members of INQAAHE¹⁰ in more than 70 countries.

In Latin America, the development began in 1990, and to date there are reasonably consolidated systems in Argentina, Brazil, Colombia, Chile, Costa Rica, Cuba, Mexico, El Salvador, Mexico, Jamaica, and the Dominican Republic. Some of these countries, Brazil, Colombia, and Chile, have already begun processes of review and adjustment of procedures and mechanisms. For their part, the following countries have begun to establish these mechanisms with various degrees of implementation: Paraguay, Ecuador, Uruguay, Peru, Bolivia, Panama, Nicaragua, and Trinidad and Tobago.

There are also regional initiatives, such as the mechanism of mutual recognition of accreditation processes and the academic validity of degrees in the MERCOSUR, recently approved by the Meeting of Ministers of Education, and called the System of Accreditation of University Courses for Regional Recognition of the Academic Quality of Respective Degrees (ARCU-SUR), and the new specialized regional agencies created in Central America for accreditation of courses in engineering, architecture, food-producing agricultural areas, and graduate programs.

Latin American agencies develop their functions with diverse purposes. Some list among their objectives licensing, the assessment of minimum conditions, or authorizations for functioning, thus providing a basic measure for quality control. Examples of these cases are found

¹⁰ INQAAHE – *International Network of Quality Assurance Agencies in Higher Education*.

in Chile, Colombia, Argentina, and in various governmental entities in different countries. Others focus their activities on the accreditation of courses or programs, which may be voluntary (as in the cases of Costa Rica, Chile, Colombia, or Paraguay) or obligatory (selected courses in Argentina, Chile, Colombia, and Cuba). The case of Colombia is particularly interesting because there the focus is on the accreditation of high quality; that is, it is centered on the identification of outstanding courses which may thus serve as examples for others in the country. Argentina, Brazil, Chile, Colombia, El Salvador and the Dominican Republic are also working on institutional accreditation.

Another interesting process is the accreditation of accreditors, which has been in place for some years in Mexico, and is beginning in Chile and in a restricted sense in Argentina. In these countries, authorization by an outside official organization or agency is an essential requisite for agencies to be able to operate. In addition, in Central America there is the Central American Accreditation Council (CCA), with representation in all of the countries of the region and with various actors involved who agreed to demand CCA accreditation for the agencies that operate in the region.

Finally some countries assess the learning of undergraduate students through entrance exams. The major experiences in this sense are in Colombia and Brazil. The latter replaced the “*provão*” with an examination that has, among other purposes, to measure the value added by institutions of Higher Education.

It should be emphasized as well that there is a strong concern for studying quality assurance alternatives that are financially and operationally sustainable through time. One trend is to focus on institutional accreditation, which is justified as being less costly and more comprehensive. It is an instrument that facilitates public financing decisions and makes it possible to approach management issues that in course accreditation tend to be left aside. An alternative focus, together with recognizing that course accreditation is very costly, highlights advantages in terms of contribution to mobility, provision of more relevant information for student and employer decisions, and above all, represents a very important contribution to the development of a culture of quality, since it places the concern on assessment and on improvement plans for the foundations of institutions; that is, the teachers and students of each course, and consequently, proposes to seek new formulas for assessment at this level.

From a comparative analysis of systems, it is possible to observe that the pertinence and efficacy of quality assurance mechanisms are judged upon their capacity to treat the following aspects:

- The need to work with flexible and broad definitions (but not for this reason less rigorous) of quality, that take into consideration the diversity of institutions, of students, and of demands.
- The absence of substantive analysis of new institutional models that make it possible to advance and precisely specify these broader definitions of quality.
- The need to emphasize results, without forgetting inputs and processes.
- The professionalism of assessors, including the presence of foreign professionals in the field.
- The need to link the process to other policy instruments, but not in a linear or direct manner. In effect, accreditation is an instrument that acquires its true efficacy when complemented by support, regulatory, and financial mechanisms or others, but taking into

consideration the implications of such linkage¹¹.

- The consolidation of accreditation processes in order to make them less vulnerable to changes and to reduce the risk that they lose their legitimacy.
- The search for sustainable accreditation mechanisms that make it possible to conserve the benefits of program accreditation while reducing the cost associated with traditional assessment mechanisms. Among possible mechanisms are, for example, to reserve course accreditation to those that are regulated (that is, those that necessarily require a recognized degree for exercise of the profession), to incorporate within institutional accreditation processes the requirement that institutions themselves develop some external course assessment process, combine institutional accreditation with that of regulated courses, or to initiate accreditation processes of academic units such as faculties, more than for individual courses.

At the same time, one should note that a mechanism that is beginning to appear repeatedly in various countries is the authorization of accrediting agencies, thus diversifying the entity responsible for accreditation. This is linked to the development of criteria or standards for the quality assurance of such agencies, as has been done in Europe (the European Association for Quality Assurance in Higher Education –ENQA), internationally (the International Network for Quality Assurance Agencies in Higher Education – IN-QAAHE), and in Ibero-America (the Ibero-American Network for Accreditation of the Quality of Higher Education – RIACES).

4. The strengthening of national and institutional systems

In general, most countries have opted for the creation and development of national quality assurance systems. Even in the case of having arrived at sub-regional agreements, as is the case of MERCOSUR, there has been an insistence that accreditation be the responsibility of national agencies, which are to apply criteria and procedures agreed upon for MERCOSUR within the framework of their own frameworks and procedures. This perspective was so important that it led to the creation of national agencies in Paraguay and Uruguay, following the guidelines of the accreditation mechanism of the sub-region.

In Central America, something similar occurred: although the Central American Forums for Higher Education initially seemed to suggest the appropriateness of the creation of a regional agency of quality assurance, the final decision was to create an entity for the promotion and fostering of national initiatives charged with assessing and accrediting agencies wishing to operate in the region. Thus, various Central American countries have a national agency or the legislation for the establishment of such. El Salvador and Costa Rica have national agencies. Panama is creating one, with legal authorization, and Nicaragua has an agency created by law, and is in the process of discussing enabling legislation.

One of the most important characteristics in this process has been the emphasis placed on the need for quality assurance arrangements made by each country to be established within the institutions of higher learning, thus generating the conditions for it to be the institutions

¹¹ For example, it seems evident that a way of relating accreditation to financing would be to restrict public financing to only accredited programs or institutions. However, it may be that there are cases in which strategic programs or institutions do not attain accreditation due to not having essential resources, and a restrictive decision could make their recuperation impossible.

themselves that can generate continual improvement processes. En Central America, the work of generating institutional capacity began in 1998 with the creation of the Central American System of Assessment and Accreditation of Higher Education (SICEVAES), focusing on the training of academics for both self-assessment and external assessment for the management of quality. These efforts, nourished by GTZ, have made it possible to establish a solid base for the subsequent establishment and development of both institutional and national processes for quality assurance of Higher Education.

As for the English and non English-speaking Caribbean, initiatives for quality assurance have a clear link to government agencies and the implementation of national Higher Education policies. In the English-speaking countries, Jamaica stands out as one of the oldest mechanisms (with more than 30 years of operation). To this are added Barbados, Trinidad and Tobago, Guyana, and St. Kitts and Nevis, already formally installed, while the Bahamas, Belize, and Surinam have progressed in the formulation or approval of regulatory statutes for Higher Education. In the Spanish-speaking Caribbean, Cuba has a national agency that is part of the state. In the Dominican Republic, quality assurance is the responsibility of a private, non-profit agency, the Dominican Association for Self-Study and Accreditation (ADAAC). Puerto Rico is part of the jurisdiction of one of the regional accrediting agencies of the United States. Martinique, Guadeloupe, and St. Martin each with a single university, and which depend on assessments carried out by the French Ministry of Education, have all issued laws regulating these processes, all in different phases of development¹².

In the MERCOSUR, the training of assessment personnel is one of the formally established requisites for participation in the regional accreditation mechanism, and national agencies direct significant resources and time as well to generating the necessary capacities to establish the processes of assessment and accreditation in the countries and in institutions of Higher Education

In the same fashion the Ibero-American Network for Accreditation of the Quality of Higher Education, RIACES, has focused most of its efforts precisely in capacity building, through workshops, seminars, internships, observation areas, study visits, and other similar strategies that have contributed significantly to generating an Ibero-American community for quality assurance.

Most definitely, Latin America – with the valuable contribution of European countries such as Germany and Spain – have been able to develop sustained activity toward the strengthening of national systems in terms of human resources training, principally in the following areas:

- Specialists trained in external assessment in different areas of knowledge and in academic management, who not only provide services in their own countries, but also represent an important resource for the region and are, therefore, widely valued and recognized.
- Generation of a solid installed capacity in institutions of Higher Education. Best use and recycling of the installed capacity in institutions of Higher Education for self-regulation which can, in turn, be made use of in order to strengthen national quality assurance processes and for the institutions to keep themselves up to date through their participation in recurrent processes of assessment and accreditation.
- Qualified professionals for organizing and administrating licensing and accreditation processes and who serve in national agencies and interact permanently, thus contributing to the exchange of experiences, continuous learning, and the strengthening of national systems within a regional perspective.

¹² See: Ali, E., *op.cit.*

- Finally, it has been possible to maintain and to strengthen regional and international entry of the personnel of ministries, agencies, and institutions of Higher Education through the activities of RAICES and the collaboration of international organizations such as the Organization of Ibero-American States (OEI) and the UNESCO International Institute for Higher Education in Latin America and the Caribbean (UNESCO- IESALC). Also of note is the central role carried out by the Forum for Higher Education, Research, and Knowledge¹³ in the formulation and change of institutional Higher Education policies in the Caribbean territories¹⁴.

However, when Higher Education systems are small, with few institutions or few courses, it may not be possible to support a national accreditation agency. Central America faced this problem through the creation of regional specialised agencies in certain areas (engineering and architecture, food-related agriculture, medicine and health services, and graduate programs). These are still in the initial phases of development, and it is expected that they will act in cooperation with national agencies, thus generating a creative and appropriate response in special cases.

As Ali notes, in a form independent from UNESCO and supra-regional agencies, the Caribbean Community (CARICOM) and national governments have established Higher Education policies for the English-speaking Caribbean, and particularly for the 15 member states. The author states that CARICOM initiated a policy of dialogue in various areas related to the development of tertiary education in the Caribbean sub-region, specifically in the themes of coverage and access; the impact of gender; information and communication technologies and distance education; qualification parameters; accreditation; technical and vocational education; and national systems. A number of these themes are already a part of the agendas of the countries or of universities, and their implementation is effective in national territories or specific agencies. Apart from CARICOM, countries such as Barbados, Belize, Cuba, Jamaica, Trinidad and Tobago, and more recently the Cayman Islands have already established a common dialogue on the future of the countries and the role of tertiary education in the so-called knowledge societies. In addition, regional quality assurance networks (the *Caribbean Area Network for Quality Assurance in Tertiary Education – CANQATE*), in the Caribbean, and RIACES, in Ibero-America have a cooperation agreement and are in the process of initiating joint activities.

5. The role of sub-regional and regional assessment and accreditation agencies

In 1998, the Ministers of Education of the MERCOSUR signed a memorandum of understanding in order to establish and put into place an experimental accreditation mechanism focused on courses defined by the Meeting of Ministers, and based on assessment criteria defined in a participatory manner and implemented by national accreditation agencies of each country in order to arrive at the recognition of the academic validity of degrees granted by accredited courses.

Between 1999 and 2002, representative of member and associated countries of MERCOSUR developed graduation profiles and criteria of assessment for selected courses (medicine,

¹³ UNESCO *Forum for Higher Education, Research and Knowledge*.

¹⁴ See Ali, E.

engineering, and agronomy), as well as norms and guidelines for accreditation procedures, manuals, and other materials, and treated the training of assessment personnel and the validation of criteria and procedures.

The results of this task were approved in 2002, and thus was begun application of the MERCOSUR Experimental Accreditation Mechanism (MEXA) for the three courses in the six countries, a process completed in 2006.

Assessment of the experimental phase made it possible to verify that the applied model, through which basic standards were defined for training in three different disciplinary areas, proved to be effective and easily applied. At the same time, the combination between the design of quality standards or criteria for the study programs, with the elaboration of norms or standards for quality assessment, that is, for the action of agencies, contributed significantly not only to the verification of the quality of accredited programs, but also to generating transnational trust in the verification processes applied.

This double trust, based on the fulfilment of the established criteria in which the certification of fulfilment is valid and reliable, presents a situation in which the most developed groups, such as the European Union, are currently only in conditions to aspire.

The process contributed to the institutionalization of accreditation processes in the participating countries, considering both the creation of national agencies for such ends in Paraguay and Uruguay, and as well as the development of an important contingent of qualified assessment personnel in the region.

As result of the process, the Meeting of Ministers of Education extended its application from the experimental sphere to one seen as established, through the creation of ARCU-SUR and the extension of the system to the courses of odontology, nursing, architecture, and veterinary medicine.

The accreditation experience with the greatest scope in the region is undoubtedly the Latin American Network for Accreditation of the Quality of Higher Education, RIACES. RIACES was formed in Buenos Aires in 2003, with the participation of 18 countries and with the support of international organizations such as UNESCO-IESALC, OEI, and CSUCA¹⁵. It is a network that seeks to reach all of the countries in the region. For this reason, its membership is defined in inclusive terms. Its membership is open not only to established accreditation agencies, but also to various public and private entities the principal purpose of which is to foster the quality of Higher Education.

Its major objective is to foster cooperation and exchange between Ibero-American countries in the themes of assessment and accreditation, and in this way contribute to the quality of Higher Education in the region. To this end, it develops activities of coordination, training, and support for member agencies and organizations, both those already installed as well as those that are in the process of creation and development.

RIACES has made significant progress during its period of operation. It has constantly supported the existing Accreditation and Quality (AC) agencies, and has worked to develop capacity in these areas in countries and sub-regions where AC is still in its beginnings. It is important to note here three significant achievements:

← The development of a Latin American community in the field of AC that is the result of various meetings in conferences, seminars, and other activities. This makes it possible to

15 Consejo Superior Universitario Centroamericano

carry out informed and systematic discussion on AC, analyze new focuses, and advance toward the establishment of internal mechanisms of quality assurance within assessment and accreditation agencies themselves.

- ← The network has provided systematic support to the Central American sub-region at various levels: to the Central American Accreditation Council, to specialized agencies that are appearing in the sub-region¹⁶, to national agencies and levels such as the Accreditation Commission (CdA) in El Salvador; to the National Universities Council (CNU) and the National Livestock Commission (CNEA) in Nicaragua, and to the National Assessment and Accreditation Council of Panama (CONEAUPA).
- ← It has also provided support to countries that are attempting to establish quality assurance systems. Besides its work in Central America, RIACES has collaborated in Peru through the Rectors Assembly, and in Uruguay and Bolivia.

It has continued to work on the harmonization of standards and procedure for assessment of programs in engineering, agronomy, and medicine, and hopes to be able to establish some mutual recognition agreements on accreditation decisions at least in one of these areas. The progress achieved makes it possible to imagine that accreditation can become a “fast track” to the recognition of degrees through bi-lateral agreements in the region. Similar work is being carried out in the graduate field, through collaboration with the High Level Personnel Training Body (CAPES) in Brazil, and the National University Assessment and Accreditation Commission (CONEAU) in a joint project with UNESCO-IESALC¹⁷.

6. Common accreditation and homologation

A study carried out for UNESCO-IESALC on the supply of courses and degrees in Latin America¹⁸ shows some interesting features:

- In all of the cases studied, institutions of Higher Education are responsible for granting academic certificates; however, although professional certification is the responsibility of the respective states, these tend to delegate this authority to institutions of Higher Education, so that both certifications coincide.
- In various countries, there are different regimens for the validation of degrees granted by institutions of similar levels, depending on whether they are public or private, and submitting the latter to more complex regulations. Something similar occurs in regard to university and non-university institutions, a situation that affects the validity of degrees and the types of attributions associated with them.
- It is interesting to note the transitory or in-development character of current normative frameworks in different countries, as well as the notable complexity and scant clarity regarding the norms that apply in the various systems of Higher Education. In many cases, there are references to norms that are still to be officially established, or to criteria that have not been defined. The most evident example is the absence of an explicit and shared definition

16 Acreditación y Prospectiva de las Universidades (ACAP) for graduate programs; Agencia de Acreditación Centroamericana de la Educación Superior en el Sector Agroalimentario y de Recursos naturales (ACESAR) for agro-foods courses; the Agencia Centroamericana de Acreditación de Programas de Arquitectura y de Ingeniería (ACAAI) ; *National QA Agencies or Arrangements*.

17 See Trebino, H. (*op. cit.*) and Pires, S. (*op. cit.*)

18 Cf. Lemaitre, M. J. y Atria, J.T., 2006.

of the concept of “credit”, in spite of the fact that its utilization as a criterion of definition of different levels of training is generalized.

- One sees a notable similarity in the structure of titles and degrees offered by institutions, especially at the graduate level. At the undergraduate and pre-undergraduate levels the similarities are more limited, and do not go beyond a distinction between university courses, (called *licenciaturas*) and non-university or intermediate courses¹⁹, which in general can either be or not be intended for subsequent continuation into undergraduate work.

Within this scenario of the internationalization of Higher Education that is taking place throughout the region, which is marked by quite heterogeneous norms and procedures²⁰, by intense academic mobility with strong repercussions in the professional market, apart from the various bi-lateral and inter-institutional agreements²¹, it is important to mention the existence of an important instrument of academic and cultural integration between national policies of the recognition and homologation of tertiary studies, and put into place by UNESCO within the framework of its policy to establish regional agreements²². We refer to the Regional Convention for the Recognition of Higher Education Studies, Diplomas, and Degrees in Latin America and the Caribbean (CREALC), which was signed in 1974 in Mexico City by 16 countries of the region, and is in the process of revision and up-dating, coordinated and supported by UNESCO-IESALC, with the purpose of re-instating dialogue among different actors, establishing strategic alliances at the regional level, and establishing a Latin American and Caribbean framework. Through the reactivation and enlargement of the agreement, it is hoped to construct bases that generate mutual trust among the different systems in order to make effective the processes of co-validation of Higher Education studies, degrees, and diplomas throughout the region.

Of particular interest is the emphasis placed on the impact of quality assurance mechanisms for degree systems. In effect, the emergence of quality assurance processes in the different systems has made patent the need to define more specific criteria in order to catalogue the different certifications and degrees granted in different systems, placing a certain urgency on these processes in those that show different levels of progress. Thus, these processes can make a significant contribution toward clearer definitions of normative and regulatory frameworks, as well as going from essentially bureaucratic regulation toward that which is more substantive and that makes it possible to recognize the capacities, abilities, and knowledge that are implicit in a particular certification, without having to resort to a country by country analysis.

The MERCOSUR example already analyzed is a significant step. Another interesting initiative is the establishment of bi-lateral agreements in which signatory countries agree to utilize accreditation as a “fast-track” toward the recognition of degrees. Argentina has subscribed to agreements of this type with Colombia and Chile, in which it is established that professionals who come from a course accredited by the corresponding national agency can re-validate their

19 Particularly interesting is the use of the word *Bachiller* to define different levels, from completion of middle or secondary education, to intermediate titles with professional training, and from intermediate titles incorporated into more broad study programs that do not imply any professional training.

20 See the study carried out by Didou, S.

21 In this regard, one should mention, among others, the initiatives of the Union Network of Universities of Latin America and the Caribbean (UDUAL); the Scale Program-AUGM (University Associations of the Montevideo Group), and the Macro-Universities Network.

22 There are six UNESCO regional agreements for the co-validation of degrees: Africa, Arab Countries, Asia and the Pacific, Latin America and the Caribbean, and two for Europe.

degrees automatically, without passing through the current slow and trying process.

The assessment processes of accreditation agencies that RIACES is fostering, as well as the harmonization of quality criteria for selected courses, can be very useful elements for facilitating the recognition, at least, of the validity of degrees. In effect, it is important to remember that professional training tends to correspond to other levels, and therefore, although the academic validity of corresponding degrees is a necessary element, it tends to not be sufficient in order to carry out a professional activity. Nevertheless, this validation, although restricted, constitutes an important step in view of the current situation.

There are also international levels of accreditation that, although they can contribute to the quality of programs or courses, demand a political agreement from pertinent authorities in the respective countries in order to be used as a homologation and degree recognition mechanism. Thus, international specialized accreditations to which some institutions aspire as a mechanism of differentiation, only acquire validity when there exists a legal act that recognizes them; particularly when it is a case of regulated courses or degrees²³.

Although a consensus exists in the majority of countries in regard to the possibility for the establishment of quality assurance processes to have a positive effect on the generation of trust within national Higher Education systems and among the systems of different countries, it is important to emphasize that such establishment is not free from risks.

In effect, in some countries, quality assurance systems are established without having the necessary legal, administrative, financial, or human resources that make it possible for such systems to be efficacious. It is also possible to observe some situations in which the interests of some institutions or pressure groups do not allow quality assurance activities to function adequately. For this reason, the work of international organizations (such as UNESCO-IESALC), regional networks (RIACES) and global networks (INQAAHE), is essential in order to support and foster mechanisms that make it possible to guarantee that quality assurance agencies and entities fulfil accepted international standards, and not run the risk of being converted into accreditation mills.

Nevertheless, even in the case of agencies that fulfil quality criteria or standards, there can still be risks. In effect, when quality assurance processes do not generate an effective commitment of the institutions of Higher Education themselves, when they use very prescriptive and formal standards, when they are excessively rigid, when they are very conservative and look with distrust on innovations in the offer or provision of Higher Education, they can make quality be nearly impossible.

Another point of extreme fragility, and that presents great challenges to Higher Education quality assurance systems and processes has to do with across-border supply. The invasion of across-border providers in the field of Higher Education, without any guarantee of quality is already a reality in the region, and should be faced with protection measures against predatory educational commerce without reference to quality, both in terms of national public policy, and by recognized supranational networks and agencies in alliance with multi-lateral organizations associated with member-states.

In this regard, two aspects are worth mentioning that demonstrate that it is possible to introduce effective regulations. On the one hand, most countries in the region have strict mechanisms for authorizing or recognizing institutions of Higher Education authorized to

²³ Regulated courses or degrees are those that require official or public recognition for their exercise (school system teachers, health workers, engineers or architects who sign building plans, lawyers who work in tribunals).

operate in the country or professional titles or degrees, particularly in the case of regulated professions. As a consequence of these mechanisms, transnational supply at this level is reduced, being concentrated principally in programs of continuing education, and those of post-title or post-degree. Moreover, some accreditation and/or assessment agencies in the region express as part of their objectives assuming responsibility and expressing their judgements regarding new offerings (on-line or mixed on-line and classroom) of university institutions – at the pre-university or graduate levels – and on the establishment of foreign institutions in their countries²⁴.

A way to avoid or to minimize all of these risks is precisely to maintain an up-to-date database of all institutions assessed and accredited in the countries of the region, through active and permanent contact with institutions of Higher Education, with disciplinary and professional associations, with the private economic sector, and of course, with other quality assurance agencies both within and outside the region. From this point of view, the activities of networks such as RIACES are particularly necessary, since they allow the agencies of the countries to be in contact with one another and to establish shared mechanisms between offering and receiving countries of these programs in order to share the responsibility for assessments.

Regarding protection measures of national education systems against the invasion of cross-border offers, it should be noted that UNESCO-IESALC carried out a survey on quality guidelines for cross-border suppliers of education in LAC. The resulting data indicate a recent trend of governments to create and implement guidelines and regulatory frameworks to such an end. Another initiative of great importance is the implementation of a pilot project within the UNESCO Portal of Recognized Institutions of Higher Education²⁵, that seeks to facilitate access to information on-line.

7. Conclusions

In this context, marked by a diversity and complexity of interests and of models of assessment and accreditation, it is possible to view the Latin American and Caribbean region and point toward some trends:

The first of these is the development of integrated quality assurance systems in a progressive process that contemplates – in a manner most appropriate for each country - the establishment of quality control mechanisms (or assessment of minimum standards), of course accreditation, on institutional accreditation, or of the measurement of learning results.

A second trend, that Latin America shares with the rest of the world, is the priority development of institutional accreditation systems. This is so for several reasons: it is less costly to assess institutions, if only due to the question of numbers; it is more efficient to assess institutions because many of the problems of courses are due to institutional policy decisions, and are not approachable at the academic unit level; from the perspective of governance of the system, institutional accreditation provides more useful information for decision-making on financing, regulations, and other areas.

Together with the assessment and accreditation of undergraduate programs there is a very important advancement in the assessment of graduate programs. Experience indicates that

²⁴ See Pires, S. (*op. cit.*)

²⁵ The *UNESCO Portal on Recognized Higher Education Institutions* is a pilot project linked to the project entitled UNESCO/OECD *Guidelines for Quality Provision in Cross-border Higher Education*.

these will be more effective and accepted in different countries to the extent that they are carried out based on converging criteria and identified as such by the set of participating countries. Thus, it is important to focus assessment on the most consolidated academic offerings: masters and doctoral programs offered by universities, excluding (at least in the initial phase) other types of advanced courses and institutions that present a possibility of divergence, and that therefore require prior treatment and discussion.

This suggests the importance of exploring and fostering innovative assessment and accreditation processes that make it possible to nurture an assessment culture at the most basic level of the institution (courses and programs) and to provide useful information to potential users of Higher Education.

There is a movement that is still in its beginnings for using the results of quality assurance processes in order to improve the consistency of criteria and procedures, increase the clarity of meaning of academic certificates obtained in different countries, progress toward their comparability, and eventually facilitate the mutual recognition of the same, and thus the mobility of students, academics, and professionals.

Finally, there is a clear trend toward the definition and verification of quality criteria for quality assurance agencies. This is a task in which organizations such as UNESCO-IESALC and the networks of quality assurance agencies (RIACES, INQAAHE, ENQA) have played an important role.

In summary, and as a conclusion, we emphasize below some important elements in the region:

- 1 Quality assessment and accreditation has gone from being a theoretical recommendation to an effectively implemented policy in Latin America, as in other regions of the world. An important feature of the majority of countries in the region is the emphasis that has been placed on the development of an “assessment culture” within institutions of Higher Education themselves. This lends a strategic role to assessment processes for the future of this level of education.
- 2 There are some indications – still in their beginnings – that quality assessment has gone from being an elitist concept centered on excellence to one that, while maintaining assessment rigour, emphasizes the pertinence and capacity of institutions of Higher Education to respond to the challenges they face within a context of massification and diversification.
- 3 Successful quality assurance processes are those that have been able to appropriately combine institutional concerns for self-assessment with an outward vision – in both the definition of criteria as well as in assessment processes.
- 4 In order for quality assurance processes to maintain and update their potential for improving Higher Education, it is vital that mechanisms and instruments be developed for measuring their impact on the quality of programs and institutions. Thus, they should seek a way to foster responsible innovation so that they may be not only mechanisms for control or external guarantee of quality, but also for fostering processes of continuous improvement, in both quality and pertinence.

In consideration of the foregoing, we present the following suggestions and recommendations:

First, there is a need to seek a better understanding of the concepts of globalism and regionalism in the face of the challenges that arise as a result of a global competition that does

not recognize the limits and capacities of different countries in different regions, particular those in LAC.

Within this scenario, it is vital to support the strengthening of public policies and inter-ministerial and inter-agency actions for creating areas of exchange and to make consistent systems for assessment and accreditation of Higher Education, which here are understood as cooperation experiences between governments and agencies that should be fostered and disseminated throughout the region. In this particular, we call attention to the pioneer roles of CONEAU-Argentina, CAPES-Brazil, CSUCA-Central America, CONEA-Ecuador, CNA-Colombia, CORPUCA-Caribbean, and very particularly, RIACES. In the particular case of the English-speaking Caribbean, one should emphasize the key role of CARICOM, national governments, the University of the West Indies, some supporting agencies, and UNESCO in the implementation of policies and in the development of quality assessment and accreditation systems. Moreover, it is necessary to foster a sustainable accreditation culture of graduate programs that serves the interests of the countries of the region, and that is able to generate trust among national systems of Higher Education.

A second important aspect arises from the fact that many countries lack up-to-date information in the field of Higher Education, and that the information that does exist tends to be incompatible between them. This is a problem that should be faced in the coming years. The mutual knowledge of systems and the development of bi-national and multi-national programs depend on the commitments of governments and of accreditation agencies to create and/or improve national and institutional data bases, validated by an agency of the respective governments.

Third, it is likely that the future will witness increasing tensions and conflicts of interest between public and private sectors of Higher Education, with immediate consequences for the accreditation of graduate courses and programs. We believe that the most productive and appropriate means for confronting this problem is through the establishment of public policies committed to the expansion, as well as the quality, of the systems for offering strategically-defined courses, through a careful mapping of local, national, and regional needs and demands. The massive expansion of Higher Education in the private sector at undergraduate levels is already having an impact on the demand for places and for the expansion of offerings of graduate courses and programs. In this context, public policies responsible for regulatory frameworks must be prepared to provide timely and rapid responses which at the same time assure the parameters of quality and permit an expansion of the system committed to responsible and coherent local and national development.

There is a growing concern in various countries for the lack or scarcity of financing for entities charged with accreditation functions. In many cases, public investments channelled to Higher Education accrediting agencies do not correspond to the real needs of countries. This can lead to opening up the field to external accreditation agencies, as noted by Lemaitre²⁶ and Trebino²⁷ in their respective studies. Apart from reiterating the undesirable internal imbalance in the region, such vulnerability of national accreditation systems makes possible the interference of external parties who impose socio-cultural principles and values that are different from those that characterize the missions, functions, and forms of acting of our institutions of Higher Education.

²⁶ *Op.cit.*

²⁷ *Op. cit*

Finally, it is necessary for the quality assurance agencies themselves to assume the challenge of identifying elements different from those that tend to be used in their assessments, and develop them in another manner: new teaching modalities, new types of programs, arrangements that take into consideration the fact that often, teachers and students are not full-time, the search for alliances with external partners that develop other functions, or combine them in other ways. It is necessary to be open to innovation – which definitely includes being open to new ways of identifying and defining quality.

For all of these reasons, we exhort the governments of the member states of LAC to adopt undergraduate and graduate accreditation and assessment systems as state policy in such a way that their guidelines and procedures include:

- ← Dialogue between the public policies of Higher Education that foster processes of making consistent accreditation criteria and procedures at the regional level.
- ← The incorporation of new forms of management and governability of accreditation entities and agencies in order for them to be able to serve the needs and meet the challenges of the next decade.
- ← A certain independence of accreditation agencies in regard, on the one hand, from the meddling of external parties, and on the other, from the oscillations and constant pressures of the labour market.
- ← The ethnic-cultural diversity of each country, and the varying demands coming from different sectors of civil society.
- ← Different profiles and forms of acting of institutions of Higher Education in the responsible exercise of their autonomy.
- ← The regulation of cross-border offers of Higher Education as a responsibility of each country.
- ← Establishment of inter-disciplinary and trans-disciplinary graduate programs , principally at the doctoral level, as a form of supporting and fostering innovative proposals and the creation of new fields of knowledge that are committed to sustainable human development in the countries of the region.
- ← Respect for free and open intellectual debate as a factor for fostering the “intellectual, moral, and artistic development and the integration of Latin American and Caribbean nations”²⁸.
- ← The commitment to undergraduate and graduate programs with priorities of local, national, and regional development.
- ← Compatibility between inclusion policies and the expansion of coverage rates on the one hand, and nationally adopted quality standards.
- ← The possibility of establishing and carrying out student and teacher mobility programs within the area of masters and doctoral programs.
- ← The contribution of greater investments for the formulation, establishment, and strengthening of public Higher Education course and program accreditation systems.
- ← Cooperation at the regional level as a form of strategic international integration for the development of countries and of the region.

Current trends in the development of assessment and accreditation mechanisms have been

²⁸ Cf. Dias Sobrinho, J., 2006.

accepted in most countries, albeit with some resistance in their implementation. It is necessary to explore the best way to balance these developments in different sub-regional territories, and seek ways to foster the exchange of persons, thus overcoming linguistic and cultural barriers. The development of networks of different kinds, as well as the promotion of permanent dialogue between regional, sub-regional, and national entities can be highly effective mechanisms that will make it possible to make progress in the clarity, comparability, and equivalency of student and professional programs qualifications, and competencies.

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Chapter 9

PATHWAYS TO INNOVATION. RE-THINKING THE GOVERNMENT OF PUBLIC UNIVERSITIES IN LATIN AMERICA

Daniel Samoilovich

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In the labyrinth

Latin American universities need and deserve better government. Without denying their contributions to society, from this point of view, universities find themselves in a labyrinth. In part, this labyrinth is the result of weakly articulated and insufficiently financed public policies. In part, it is also the result of institutional inertia and of the overlapping corporative interests of academic sectors.

Why another study on university government? The fact is usually accepted that Latin American universities lack governability – understood as the ability to articulate an institutional project and put it into practice. But this judgment does not carry with it a consensus regarding causes. Thus, it becomes difficult to confront the problem. Studies on the subject tend to conclude with a diagnosis, but institutional authorities rarely find in them a source of inspiration for action.

In part, the insufficient nature of the analyses is due to their orientation. On the one hand, they analyze public policies that can contribute to better university government, and in this sense they do make an important contribution, although not always providing empirical evidence on the consequences of such policies. Nor do they tend to be concerned with better understanding the link between such policies and internal changes within universities.

On the other hand, studies that concentrate on governmental processes in general focus all of their efforts on constructing a typology of governmental models: collegial, bureaucratic, hierarchical, organized anarchical, etc. However, all models are contingent on the capacity of an institution to govern itself. These typologies conclude where they should begin: in their use for the understanding of concrete manifestations of government that result from the combination of ideal types, as occurs in reality, and for the analysis of the consequences for institutions.

This gap is remarkable when one considers that the variety of situations offers fertile soil for comparative analysis. But we lack a medium-range theory – and we should remember the so-often badly quoted Kurt Lewin: nothing is more practical than a good theory – which allows us to conceptualize different types of situations, rising above the single case, but without resorting to generalizations that are of little use. Once again, the lack of empirical analysis is notable.

In addition, there seems to exist in this area a divorce between the concern of students of the subject and the perceptions of institutional leaders, occupied as they are with urgent and difficult governance problems.

This study seeks to be useful, above all for those who carry the responsibility of institutional management.

The image of the labyrinth as a representation of the lack of governance seems opportune. Let us imagine Daedalus, a prestigious architect, inventor, and sculptor, a man very respected in his native city of Athens¹. At the service of King Minos, he constructs at Gnosus in Crete a labyrinth from which the Minotaur can never escape. Due to the mistakes committed by the

¹ Among other projects, he constructed the temple of Apollo in Cumae, the bronze automaton of Thalos, the steam baths in Selinunte, a fortress in Agrigento, the towers named for him in Sardinia, the sanctuary of Ptah in Memphis, and wooden images with moving hands and eyes, and that could speak ... The name Daedalus means "cunning artificer". Sócrates claimed to be a descendent of Daedalus.

king, and which lead to the death of the Minotaur at the hands of Theseus, Daedalus and his son Icarus are enclosed within his own labyrinth.

The Greek myth tells us several important points.

In his *Metamorphosis*, Ovid recounts the secret of the labyrinth: “Great Daedalus of Athens was the man that made the draught, and form’d the wondrous plan; Where rooms within themselves encircled lye, With various windings, to deceive the eye”². In decision-making processes in Latin American universities, it is common to note the existence of multiple points of reference, not only in regard to public policies that often lack internal coherence, but also due to the fragmentation of the institutions into multiple interests. The difficulty of articulating an institutional vision, which according to our definition is one of the pillars of governance, derives precisely from the way that such points of reference weave a tangle, neutralizing any kind of collective action.

The myth tells us something else that is surprising: in spite of having designed it himself, Daedalus cannot use the secret of the labyrinth in order to escape from it. Can we find a similarity of this impotence in the difficulties of an institution dedicated to producing and disseminating knowledge of such a varied nature, including that of politics, administration and management, to find in itself the mechanisms necessary for good government?

But another vision of the labyrinth exists, offered to us by Borges, and placing it in the mouth of the Minotaur: “Another ridiculous falsehood has it that I, Asterion, am a prisoner. Shall I repeat that there are no locked doors, shall I add that there are no locks?”³. This vision leads us to the construction of the impossible in organizations, and underlines the importance of institutional leadership in the construction of the possible. In the end, poor Daedalus ended up by lending his name as a synonym of labyrinth. But there is a subtle but important difference: while a labyrinth refers to a real construction – reproduced in stone, metal, or plant, Daedalus expresses a deliberate confusion in a non-material domain.

If we are speaking of the construction of the possible, there is evidence that the institutions are improving their governmental practices as a result of stimuli from the context and of decisions of the institutions themselves. These innovations are contributing to improved governability.

The myth offers us as well a key to discovering the character of these innovations: Daedalus and his son Icarus escape from the labyrinth by coming out on top.

In this work, we first explore contextual factors that require a greater response capacity on the part of public universities: the increase in coverage, improvement in the retention of students who come from disadvantaged social sectors, and greater pertinence and quality of their training offerings.

In the second part, we analyze the obstacles that habitually hinder the governability of institutions, and then focus attention on the lack of articulation between three key functions: the shaping of an institutional project, academic management, and financial administration. We thus may see “good government” as a triangle linking the functions of government, academia, and administration.

In the third part, we analyze the public policy major changes of the last 15 years, and particularly in regard to normative issues, the introduction of assessment and accreditation systems, and the utilization of non-traditional financing mechanisms.

2 Ovid. *Metamorphosis*, Book VIII.

3 Borges, J. L. La casa de Asterión. In: *El Aleph*. Obras Completas, tomo I.

The last section focuses on identifying the principal institutional innovations that have a favourable impact on the governance capacity of universities.

In order to limit the great heterogeneity of situations, the work limits its analysis to the problem in public universities in Latin America, while recognizing that many innovations, and perhaps the most significant ones, occur in private institutions. Undoubtedly, the latter is a very interesting area of analysis; but one for other studies.

These pages contain no prescriptive model. Although we clearly advocate more entrepreneurial universities, we are convinced that there is no single way to give to a university a greater capacity to act. Beginning with existing innovations, this work is meant to be a contribution for the improvement of university government by stimulating reflection on the part of institutional leaders as well as through the dissemination and application of best practices.

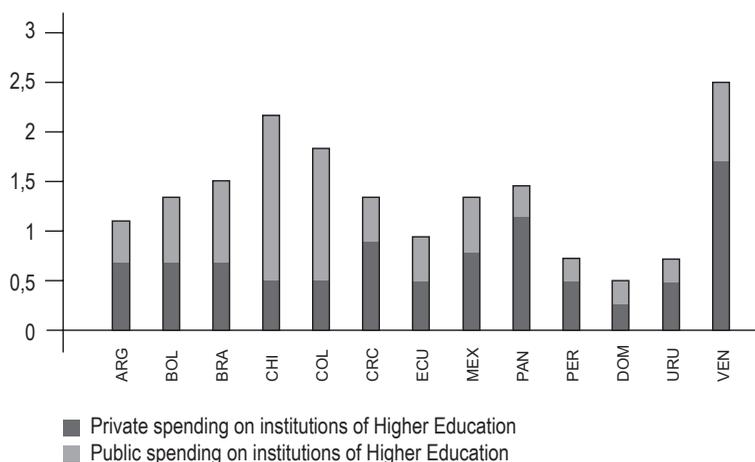
1. Strategic contexts

The concept of challenge has been applied so often to the analysis of Higher Education, that it now has little to say, and should be banned from all conferences during the coming decades. However, any analysis of institutional performance must begin by considering the strategic contexts in which the institutions in question function, and beginning with a key question: is there a real commitment of societies to their universities?

In the case of public universities, which are the object of this analysis, the context of the market within which they develop is created in great measure by public policies, principally through funding policies.

Support for Higher Education competes with other needs and requirements, beginning with the financing of primary and secondary education. The evolution of Higher Education financing during the last two decades does not permit a clear response. As we will see in

**TOTAL SPENDING BY COUNTRY
FOR Higher Education, PUBLIC AND PRIVATE**
(as a percentage of GDP)



Source: Taken from CINDA, Educación Superior en Iberoamérica. Informe 2007, p. 205



what follows, on the average, the region dedicates 1.3% of its GDP to Higher Education. This figure is well below the percentage spent by countries in other regions such as Europe or Asia. The following table illustrates the great differences that exist between countries in terms of the percentage of GDP dedicated to this end, as well as the support of public and private resources.

In the past, public financing did not accompany fully-expanding enrolments. Since the beginnings of this century, in most countries of the region enrolments flattened out. At the same time, there was a relative consolidation of the institutional platform and, in any case, the private sector stopped growing at the same pace as previous decades. Budgets, as we shall see continued to stagnate. The reformist zeal of educational authorities could be characterized as moderate. Are all of these indicators of university relegation to a secondary plain?

We return momentarily to the myth of the labyrinth and its multiple interpretations. In 1558, Peter Bruegel painted “Landscape With the Fall of Icarus”⁴. He divided the picture in half diagonally. The bottom half represents daily life, with the figures of a ploughman, a shepherd, and angler. The upper half represents dreaming and innovation. It is difficult to see in the foreground the legs of Icarus, about to drown, and with him the innovation of Daedalus. The characters are the same as in Ovid, but the interpretation is radically different. In Ovid, the angler, the shepherd, and the ploughman admire the feat of Daedalus and Icarus, who they take for gods. In Bruegel’s painting, the three remain indifferent. “In the immensity of the landscape, Bruegel diminishes the fall of Icarus to absolute lack of meaning. No one notices it. Life continues” (Edwin Mullins).

Although our perception of innovation, 450 years later, is radically different, Bruegel’s interpretation of the myth allows us to illustrate the following point: what are the problems that can lead Latinamerican societies to “notice” their universities?

The competitive advantage of universities is given by the value that they add to their surroundings. What is their social profitability? What themes are on the agendas of Higher Education public policies, and that can constitute priorities in terms of public financing? What are the questions that today demand responses from universities?⁵

4 In the most popular of the versions, in order to escape the labyrinth and Crete, Daedalus fashioned a pair of wings for himself and his son, made of feathers and wax. Before they took off from the island, Daedalus warned his son not to fly too close to the sea, as the feathers would become sodden, nor too close to the sun, as the wax would melt. Overcome by the sublime feeling that flying gave him, Icarus soared through the sky joyfully, but in the process he came too close to the sun, which melted his wings.

5 Regarding the concept of social profitability as applied to universities, see the interview with the Rector of the Universidad Autónoma de Madrid, Gabilondo Pujol, A. Available at: <http://www.madrimasd.org/cienciaysociedad/entrevistas/revistamadrimasd/detalleEmpresa>.

All generalizations are problematic. Latin American universities develop within different strategic contexts. These contexts differ according to the size of the system, the number of institutions, the schooling rate, the importance of the role of private universities, and the level of public investment, not to mention some of the factors that influence them. But, beyond the diversity of situations one can observe what are the principal requirements that put into play their capacity to govern themselves

The important study published by CINDA⁶ enormously facilitates the task. From a comparison of national reports arise three large orders of problems: greater access to advanced qualifications for young people who are able to undertake university studies and their retention in the first year of study, high-level teaching, and the training of human resources with the qualifications required for the world of employment and research. That is, coverage, quality, and pertinence.

Coverage

The decrease in the growth of university enrolments signals a coverage crisis more than the satisfaction of the population demand.

The massification processes of the last three decades produced different situations in terms of the size of systems and the levels of massification attained by them.

NATIONAL SYSTEMS CLASSIFIED BY THE SIZE AND LEVEL OF MASSIFICATION ¹

LEVEL OF MASSIFICATION	High (55% or more)					ARG
	Medium-high (46 to 55%)	PAN				
	Medium (36 to 45%)	URU	BOL CRC	CHI	VEN	
	Medium-low (26 to 35%)		DOM	PER	COL	
	Low (25% or less)	SAL GUA HON NIC PAR	ECU			BRA MEX
		Small 0 to 150,000	Medium-small 150,000 to 500,000	Medium 500,000 to 1 million	Medium-large 1 million to 2 million	Large Over 2 million
SIZE OF THE SYSTEM						

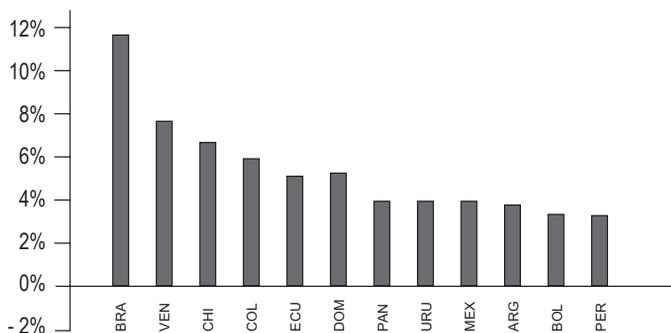
1: Size of systems measured by total enrolments in 2004 and level of massification by gross rates of schooling for the same year.

Source: CINDA, Higher Education in Iberoamerican. Report 2007, p. 107 and Gurria, M. and Wolff, Laurence (2005). Money Counts: Projecting Education Expenditures in Latin America and the Caribbean to the year 2015. UNESCO Institute for Statistics, Montreal.

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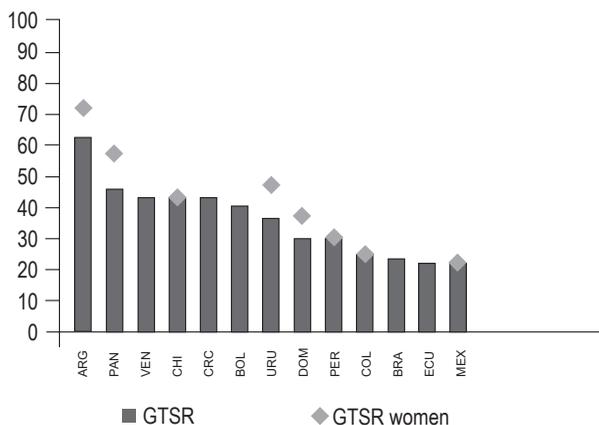
6 CINDA. *Educación Superior en Iberoamérica*. Informe 2007.

AVERAGE ANNUAL RATE OF THE GROWTH OF ENROLLMENT, 2000-2004/2005



Source: Nacional Reports, 2006
Taken from: CINDA, Educación Superior en Iberoamérica. Informe 2007, p. 105.

GROSS TERTIARY SCHOOLING RATE, TOTAL AND FOR WOMEN



Source: Based on UNESCO, Global Education Digest 2006 IESALC, Report on Higher Education in Latin America and the Caribbean 2000-2005, 2006. Taken from: CINDA, Higher Education in Iberoamerican. Report 2007, p. 105.

Today, apart from such variations, in almost all of the countries, the expansion of enrolments tends to decrease, and in some cases it has levelled off. In effect, with the exception of Brazil, the annual rate of growth of enrolment between 2000 and 2005 varied between 3% and 7%.

This stabilization of enrolments does not reflect satisfaction of potential demand, but rather the growth limits of a system under conditions of social inequality. Gross entry rates to Higher Education are between 20% and 60% at the level of university programs. More important than the number of students enrolled are the participation rates compared to the cohort of the age for entering Higher Education. Currently, these are on the average around 40%, with significant differences between the extremes. While Argentina surpasses the barrier of 60%, in the lower part, Mexico, Brazil, and Ecuador do not attain a rate of 25%.⁷

This situation is not expected to change in the immediate future without the intervention of active policies on the part of governments, accompanied by an expansion in university, and

⁷ CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 106.

particularly public university enrolments since in all countries of the region enrolments in private institutions, which in the recent past have been largely responsible for increases in rates of schooling, has tended to stabilize.

It is in Brazil the problem of coverage presents itself most pointedly, perhaps due to the contrast with its development potential and its weight on the international scene. In spite of having an annual growth rate of near 12%, “pressure for expansion continues being an immense challenge that the Brazilian government faces in the area of education, given that quantitatively, the basic levels of schooling are already meeting the demand”.⁸

With 4,676,646 students enrolled in regular classroom degree courses in 2006 (INEP census), the number of students in Higher Education nearly tripled since 1996, the year of approval of the *Law of Education Bases and Guidelines*. Enrolments in public institutions between 1994 and 2004 increased by 70%, while those of private institutions increased by more than 200%. This trend continued in the 2000-2004 period, when the participation of the private sector in total enrolments went from 67% to almost 72%.

At this time, due to the fact that a constant level of financing from the public sector was unable to satisfy increasing demand, it was decided to liberalize the expansion of private Higher Education. Recently, this policy was increased due to affirmative action policies that foster the entry into public universities of students from ethnic groups suffering from discrimination and of students graduating from public secondary schools.

However, and in spite of the fact that in Brazil, students in private institutions pay relatively low tuition in international terms, the supply on the part of the private sector did encounter the hoped for demand. This reflects the fact that the new social sectors that are able to seek university entrance due to their having completed secondary studies often do not have the purchasing power to pay for these studies. The role of Brazilian public universities, in this sense, continues to be vital. This is particularly the case in regions in which the private sector is interested in entering.

Note that the public sector in Brazil is composed of three different kinds of universities: federal, state, and municipal. Currently, the participation of federal universities in public university enrolments is approximately 49%, while that of state universities is 40%, being the sector that has experienced the most growth. The latter reflects the interest of states to have their own Higher Education systems.⁹

Mexico is another country of the region with a large system, but one with low coverage: the gross university schooling rate went from 19.75% in 2000 to 23.01% in 2005.

The increase in demand for Higher Education in recent years has generated two patterns of access to Higher Education. The groups with highest incomes, with professional, non-scientific interests, aspire to and incorporate directly into private elite institutions. If they have scientific interests, given that such institutions do not have programs of this type, the attempt to enter public institutions.

The remaining aspirants to Higher Education services, without possessing the privileges of the high income groups, must follow a “long and winding path”: aspire to enter federal or state public institutions that have limited places available. If they do not succeed in doing so, and facing the impossibility of paying the costs of enrolment and tuition in elite private institutions or those of medium quality, they choose to find a place in institutions that absorb the

8 Leal Lobo Silva Filho, R. (2006). A Educação Superior no Brasil. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 5.

9 Leal Lobo Silva Filho, R. (2006). op. cit. p. 11.

demand. It is important to keep in mind that:

Some 70% of the new aspirants are pioneers, and not heirs. They represent the first generation of their families to fulfil the academic requirements to be able to knock on the doors of an institution of Higher Education. Most tend to prefer high-demand courses (law, accounting, administrating, odontology ...) linked to the culturally established promise – whether false or not – of social mobility associated with these professions. These are the programs the number of places of which the public sector has decided to neither increase nor reduce. But they are also those offered by demand absorbing institutions.¹⁰

In Mexico, as with other countries of the region, the attempt to develop a segment of non-university tertiary programs, for example in advanced technical studies, has had limited impact. This is due principally to a very deep-rooted cultural perception: the goal is to hold a diploma, and not to be a technician.

As in Brazil, the public sector in Mexico is made up of a heterogeneous conglomerate of institutions that can be roughly classified into the following categories: federal universities, public state universities, state public universities with outside funding, federal technological institutes, autonomous technological institutes, technological universities, polytechnic universities, and inter-cultural universities. During the last 15 years, horizontal differentiation (variation in the types of institutions) and vertical differentiation (establishment of hierarchies among the types) have occurred. This differentiation, seen during the last two decades as one of rationalization of educational offerings, together with weak coordination of the system, has in fact consolidated the inequality of educational opportunities.¹¹

For its part, the private sector, after a growth between 1990 and 2002 of private institutions that saw participation in enrolments go from 15% to 30%, has stabilized, both as a percentage and in absolute numbers. This also reflects the limitations of families and individuals to pay tuition, and appears to be confirmed by the fact that elite institutions such as the Instituto Tecnológico de Monterrey (ITESM), have created another modality called “Tec. Milenio” in order to compete with demand absorption institutions, lowering the costs of these new establishments.¹²

At the other extreme of the spectrum, Argentina, also with a large system, is the country in the region with the highest schooling rate. Beginning in the year 2000, both student demand and the establishment of new institutions stabilized. The total growth of degree enrolments between 2000 and 2005 was 15%, with an annual average growth rate of 3% - a figure lower than in previous years. For its part, non-university Higher Education enrolment grew by 16%.

The gross schooling rate, which according to different calculations, is between 45-50%, may be overestimated due to including those in entrance courses and due to not having included the enrolment of those abandoning studies without graduating. “Although the gross university schooling rate is high... the weakness of selection and entrance mechanisms, together with deficiencies in pre-university training, make it a correct, but inconsistent datum in terms of young people enrolled in a system in which it is common to repeat or fail, or to

10 Gil Anton, M. y, M. J. Pérez García (2006). Educación Superior en México. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 16-17.

11 *Ibid.*, p. 24.

12 *Ibid.*, p. 18.

remain for an extended time”.¹³

Ecuador, with a small lower tertiary education system, is another country in the region that shares a low schooling rate with Brazil and Mexico.

Enrolments have grown during the last six years as a result of greater coverage of secondary education, especially in marginal urban and rural areas, and of the growing presence of women in colleges and universities. This increase in enrolments occurs primarily in private institutions.

Colombia and Peru, two countries with medium-size systems, have low average schooling rates.

In Colombia, after a decline in undergraduate from 2001 to 2002, coverage has taken a preeminent place in public policy. Enrolments experienced a growth between 2003-2004. This may be explained by government efforts to grant education credits and by cooperation between the Ministry of National Education and the National Learning Service (SENA), the technical and technological training programs of which were fostered by Law 749. The increase in coverage between 2003 and 2005 was basically due to the “statistical” incorporation of 120,000 Higher Education graduates.¹⁴

In Peru, with a growth of 38%, the private sector is primarily responsible for the percentage increase in undergraduate enrolments from 2000-2005, which had been 22.9%. The public sector grew by only 12%. Beginning in 2003, enrolments were stable. On the one hand, budgetary allocations to public universities have not made possible an increase in the number of students during the five year period. On the other, reduced household incomes have limited access of many to private universities.

In a similar period, enrolments in tertiary non-university institutions have not grown, thus confirming the low attractiveness that this segment has for young people who successfully complete secondary schooling.¹⁵

Chile and Costa Rica have a medium classification.

In Chile from 2000 to 2004, undergraduate enrolments went from 435,660 to 559,492 students, an increase of 22,1%. The Higher Education enrolment increase has been different for different socio-economic sectors. The largest increase has been among those with larger incomes, where coverage reaches 74%, while for those with less income it is 15%. Taking into account enrolment in new private universities and in traditional private universities of the Council of Rectors, it is estimated that 40% of students study at private universities.¹⁶

In Costa Rica, enrolment in state universities between 2000 and 2006 grew by 20.6%, mainly thanks to the growth of the Universidad de Costa Rica (UCR) and the Universidad

13 Marquis, Carlos y Toribio, Daniel. (2006). Chapter about Argentina. En: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pag. 17. “There are no systematic cohort follow-up studies, but it is estimated that a percentage near 50% of enrollees drop out during the first year.”

14 “The tendency persists of university training being seen as the ideal by Colombians, in detriment to other modalities such as technical and technological training, which lacks social recognition, and is seen as second-class. Moreover, in a sense, the latter have been encouraged to “be universities”, and thus producing a phenomenon through the legal authorizations of a growing number of institutions that do not have internationally recognized standards to effectively operate as universities” Orozco Silva, L. E. (ed). (2006). *Educación Superior en Colombia*. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 23.

15 Consorcio de Universidades.(2006) *Educación Superior en Perú*. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007 p. 9.

16 Gonzalez, Luis E. (coord.).(2006). In the case of Chile. En: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pags 5 y ss Of the total of civil institutions, there are 16 state universities grouped into the Consortium of State Universities, and the rest are private. Among the private institutions, there are six universities created before 1981, and three created from them which the ministry of education classifies as “private and of a public character” that receive treatment similar to state institutions. These 25 institutions make up the Council of Rectors, an entity created by law and presided over by the minister of education. Among the private institutions, 15 which are church-supported, and five founded by foreigners.

Nacional de Educación a Distancia (UNED). There have been four state universities since 1975, but all of them have created regional centres in order to respond to the demand for courses in various regions of the country. In the private sector, which during the 1990s experienced explosive growth, enrolments between 2000 and 2005 (the last year for which figures are available) grew by 37.2%.¹⁷

In summary, we can state that, although growth in the numbers of university students has in general levelled off, the level of coverage, compared to world standards, continues to be insufficient, above all if one considers the low attractiveness of the non-university tertiary segment.

Retention and graduation

The insufficient coverage of university systems is aggravated when one considers that in general, they are associated with course repetition and drop-out and low graduation rates.

Rollin Kent states: “undergraduate course professors comment daily that students come badly prepared, since they are neither able to read nor write”.¹⁸

As can be seen, this problem is particularly serious in Argentina, but is not exclusive to that country.

Studies offering few details place the graduation rate at around 20%. In some courses such as engineering, the graduation rate is only 6%. This situation particularly affects public universities, with the paradox that, with a low level of investment per student, the cost per graduate in Argentina is comparable to international levels.

Together with Argentina, Bolivia and Colombia are the two countries that require the greatest number of enrolments in order to “produce” a graduate. In Bolivia, a study carried out in order to determine timely graduation rates between 1996 and 1999 showed very low degree granting efficiency rates of between 19% and 27%, showing high drop-out and repetition at the global level (between 36% and 40%), and specific drop-out indicators that reach 50% and 60%. For Colombia, a study carried out by the Universidad de los Andes concludes that drop-outs reach rates of around 45%.¹⁹

Similar estimates in Mexico reach the conclusion that in undergraduate courses, for each 100 students who begin their courses, approximately 40 do not complete them.

The lack of reliable information systems for making it possible to whether a student abandons studies or enrolls in another course in another university makes it difficult to make precise estimates. In some cases, there have been attempts to analyze rates of timely graduation. For example, for Brazil, Roberto Lobo calculated the percentage of graduates in relation to the percentage of entering students who remain for four years, and estimated the percentage of timely graduation at 60%. A similar calculation for Chile, where five years is considered to be the average duration of a university course, places the timely graduation rate at 50%.

In Costa Rica, a recently-produced study on public universities for the 2000-2004 period notes that in recent years, state universities have graduated, on the average, slightly less than

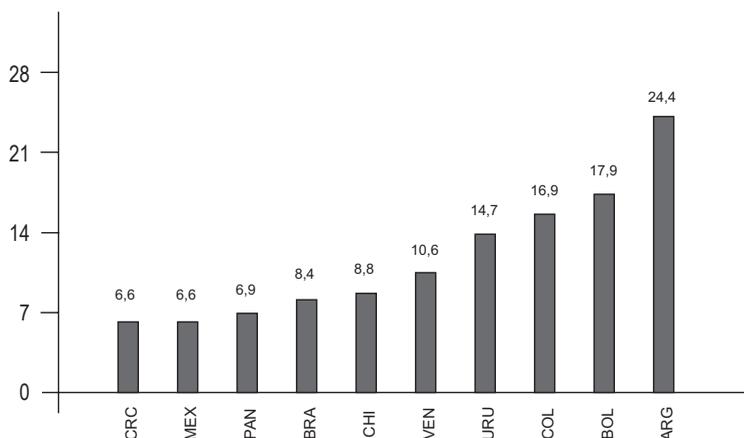
17 Macaya Trejos, G. (2006). Educación Superior en Costa Rica. In: CINDA. *Educación Superior en Iberoamérica.*, p. 14.

18 Kent Serna, R. (2007). La educación superior: Falacias y problemas. En revista *Nexos*, No. 355, Julio de 2007.

19 Orozco Silva, L. E. (ed.). (2006). Educación Superior en Colombia. In: CINDA. *Educación Superior en Iberoamérica.* Informe 2007, p.55.

ENROLLMENT NECESSARY IN ORDER TO PRODUCE A GRADUATE

Proportion of total enrollments / graduates of Higher Education in the same year



Source: Based on UNESCO, Global Education Digest 2006 and UNESCO Institute for Statistics, Education Data base, 2006.
Taken from: CINDA, Higher Education in Iberoamerican. Report 2007, p. 134.

one-half of the students that one would expect in light of the admission figures and average duration of course stipulated in plans of study.

Research on timely graduation should consider that in the majority of Latin American university system, a high proportion of students do not dedicate themselves to full-time study. This largely explains the prolongation of their university experiences beyond the theoretical times stipulated.

To date, only Colombia, with its System for Prevention and Care of Desertion of Institutions of Higher Education (SPADIES) and Mexico with its National Higher Education Grant Program (PRONABES), have developed specific programs to develop specific programs in order to respond to this problem as the systemic level. Here, as in the rest of the countries, universities will need to develop mechanisms for accompanying at-risk students in order to increase their possibilities of academic success.²⁰

With the introduction of active policies for the expansion of secondary schooling and/or increased access to universities (especially education credit mechanisms and affirmative action programs), traditionally excluded sectors are beginning to be incorporated into Higher Education. Increased coverage, contrary to what has occurred in the past, does not necessarily flow toward the private sector.

Serving new types of students will make it necessary to introduce teaching-learning models that are more appropriate for students from underprivileged backgrounds. Upon the responses of public universities will depend their legitimacy and, in one way or another, their financing.

20 Gil Anton, M y M. J. Pérez García (2006). Educación Superior en México. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 15.

Pertinence

Contemporary societies “demand of Higher Education the training of competent personnel in order to manage the most advanced knowledge in various professions and technical fields, as well as to produce scientists and engineers able to participate in the production of new knowledge and to contribute to its utilization through the processes of innovation.”²¹

Between 2003 and 2007, the gross domestic product of Latin America grew by 18.5% – the equivalent of 3.5% annually. This was the largest growth in the last 30 years. It was the result of a combination of factors – particularly of the stability of macroeconomic policies, high international prices for raw materials, and of foreign investment. In the mid-term, economic growth requires a greater investment in science and technology and in trained human resources. The region invested only 1% of its GDP in science and technology, compared to, for example, the 3% of China. The training of qualified human resources is principally in the hands of universities.

However, “the potential effects of education on equity are long-term and, what is more important, they are not produced without a dynamic generation of quality jobs. Undoubtedly, this is the “Achilles’ heel of economic reforms. [...] For this, it is vital to foster levels of investment and growth”²²

One way to appreciate the pertinence of educational offerings in regard to labour market demands is to compare average unemployment and labour force rates with unemployment rates of the population with Higher Education studies. A Cinda study table (page 136) shows that for Chile, Colombia, Costa Rica, Ecuador, Mexico, and Peru, the unemployment rate among university students is higher than for the population as a whole. In Mexico, for example, given the low production of employment the jobs of technicians are being occupied by those with undergraduate degrees.

**AVERAGE UNEMPLOYMENT RATE OF THE LABOUR FORCE DURING 2000-2004,
BY EDUCATIONAL LEVEL (In percent)**

	Total labor force	Per achieved educational level		
		Primary	Secondary	Higher Superior
ARG	15,6	42,8	38,5	17,7
BOL	5,5	60,2	32,5	4,4
BRA	9,7	..	..	..
CHI	7,4	18,5	59,0	21,8
COL	14,2	26,9	52,9	16,5
CRC	6,7	62,2	24,1	9,9
ECU	11,4	28,8	47,7	21,9
MEX	3	13,7	30,1	46,4
PAN	13,6	35,9	37,3	26,0
PER	10,3	9,4	61,4	28,6
DOM	15,6	..	..	..
URU	16,8	54,8	31,3	13,9
VEN	16,8	..	..	..

Source: based on The World Bank Development Indicators 2006.

Adapted from CINDA, Educación Superior en Iberoamérica. Informe 2007, p. 136.

21 CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 131.

22 Ocampo, J. A. (2000). *Un Nuevo Pacto Social para América Latina*. CEPAL, p.7.

This would seem to indicate that there are no information and adjustment mechanisms to guide students toward segments with higher demand. To anticipate such demands is not an easy task, since it depends on many factors. Thus, the fluctuation is smaller in the service sectors than in industry, since one can estimate the necessary numbers of professionals in the sectors of education, health, etc. based on the population pyramid.

However, the demands of the labour market have had a limited impact on university offerings. A survey carried out within the framework of the Gradua2 project indicates that only a small percentage of universities carry out systematic follow-up of their graduates in order to be informed about their work performance and their degree of satisfaction with the training received.²³

Globalization will require a greater capacity for institutions to react to, and to anticipate changes in demand for new professional profiles. This will be a key factor in institutional competitiveness, which will depend on serving new types of students in a market of continuing education, a source of content innovation, of resources, and of incentives of academic units and their personnel.

Another way of assessing the pertinence of Higher Education studies is to analyze the contribution of universities to research and innovation. Here, public universities must take a commanding role considering their preferential access to public funding for research. Currently:

very few institutions from each country can operate fully as research universities on the cutting edge of knowledge ... human resources occupied in the tasks of the production of science and technology are scarce, and have become concentrated within very few groups of universities. Moreover, the production of original academic knowledge in the region, although small in terms of international publications, is still the only active link with the world scientific community, and offers the basis for the development of more advanced teaching programs, at the doctoral level.

Low investment in science and technology is (...) the major reason that the countries of the region are behind in the production of knowledge... but... there are problems as well in the organization of R&D in universities, little linkage with companies, an absence of government priorities, unarticulated national innovation systems, low productivity of academic research, and in the majority of Higher Education systems precarious development, of programs for training new researchers.²⁴

Quality

As we will see, one of the most visible changes currently taking place in Higher Education is the gradual introduction of quality assurance systems and procedures.

These systems and procedures seek to stimulate continual improvement of institutions and their performance, as well as to guarantee training standards in different professional fields and graduate programs, together with good institutional management principles and practices.²⁵

23 See Red Gradua2 y Asociación Columbus. En: *Manual de Instrumentos y Recomendaciones sobre el seguimiento de egresado*. (2006). Available at: <http://www.gradua2.org.mx>

24 CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 162.

25 *Ibid.*, p. 295.

The rapid development and dissemination of these systems and procedures are due to three factors:

- Rapid expansion of tertiary level enrolments during the 1980s and 1990s, with the consequent creation of new public universities, at times with links to already established institutions on the one hand, and greater pressures on not always available public resources during a time of fiscal restrictions;
- Explosive growth in private institutions, frequently fostered by a lack of legal regulations. For this reason, in many countries of the region, assessment and accreditation systems were viewed by the more established universities, in the beginning, as a market protection system, although in their dynamic the systems “dragged along” as well traditional public or private institutions; Increased internationalization of Higher Education, which involved maintaining a certain level of international recognition in order to facilitate the mobility of students and academic cooperation agreements, as well as the desire to control the establishment of branches of foreign universities within the country.”²⁶

As a result of assessment and accreditation systems, there have also appeared various national and international rankings. The latest of these was carried out by the University of Shanghai and based particularly on research activities. In Brazil, the national course examination, known as the “*provão*”, or “big test” is, since 1994 to 2003, produced rankings by discipline that were published in the press with great public impact.

It is to be expected that national and international rankings provoke repercussions in the media and in society, in that they differentiate institutions, whether justifiably or not, in terms of the quality of their academic offerings, or simply their international prestige. In any case, international cooperation and the creation of academic networks among institutions tend to be increasingly based on mechanisms that compare learning outcomes.

Finally, we should mention another important consequence of assessment and accreditation processes: the competition to attract and retain teachers, since this is one of the usual indicators used to judge the quality of academic programs. Therefore, universities compete to attract teachers with graduate training, particularly in certain professional areas, which requires comprehensive human resources management.

This section traced a panorama of the large questions about which Latin American universities are called upon to provide responses: coverage, retention, pertinence, quality, and internationalization. All of them demand a strengthening of governing capacity. We will now consider in what this capacity consists, and what are some of its obstacles.

2. The governing of universities and its obstacles

Get to your places!- shouted the Queen in a voice of thunder, and people began running about in all directions, tumbling up against each other; however, they got settled down in a minute or two, and the game began.²⁷

The response of universities to the above-mentioned requirements of greater coverage, quality, and pertinence depend to a large extent on the capacity of the institutions to govern themselves. Moreover, efficacious, innovative, and responsible government before state and

²⁶ CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 295.

²⁷ The croquet game in: Carroll, L. (1864). *Alice's Adventures in Wonderland*.

society makes it possible to preserve institutional autonomy. On the contrary, a weak government, that maintains institutional inertia and established interests, legitimates external control and intervention measures in various areas of university life.²⁸

Note that, in our definition, governance is what makes it possible to engage in a shared institutional project and put it into practice.

There is no form of government that guarantees governance. Its different forms are contingent to governance, and respond to situations and contexts that have in fact existed, but with all probability have profoundly changed. When greater governance exists, the “rules of the game”²⁹ are clear.

It was long considered that the key to governance lay in strategic planning. Why have so many planning exercises continued to fail? The main reason is not a technical one. In contrast to what happens in a business, in a university, the ability of authorities to affect resources and re-assign personnel is very limited. For this reason, they end up being mere rituals.

But there is another reason as well. Universities are complex entities, composed of professional groups with their own identities, academic units that each have their own histories, teaching programs at different levels, etc. The larger the size of the university, the broader the spectrum of disciplines, the greater is its complexity.

But to define universities as complex organizations is not enough. Let us analyze this heterogeneity from the perspective of the positioning of the actors in regard to the critical parameters for organizational performance: their greater or lesser degree of identity, and their greater or lesser degree of sensitivity to signals from the environment. Here lies the tension between identity and openness that defines a university’s vocation.

Bureaucrats, artisans, mercenaries, and arbiters



Let us begin by calling the actors to the playing field.³⁰

First, all universities are made up of academics. Their principal loyalty is toward their disciplines, and their principal groups of reference are colleagues on the national and international levels. We can depict them as a totem pole, in order to underline their belonging to a “tribe”. From the organizational perspective, these actors are very important, since they constitute the basis of collegial-corporatist forms of self-government. They can also exercise their influence using their prestige through associative action.³¹

The fact is that academics do not constitute a homogeneous sector. For example, the division that Simon Schwartzman presents of the academic profession in Brazil is illustrative. He distinguishes four sectors: a) a significant number of professionals who participate part-time in universities in badly-paid, but prestigious teaching tasks; b) academics with high prestige, holding doctorates, frequently from foreign universities,

28 Gómez, V. M. (with Forero and Zarur) (2001). *Gobierno y gobernabilidad en las universidades públicas*, p. 8.

29 López Zarate, R. (2001). Las formas de gobierno en las IES mexicanas. In *La Revista de la Educación Superior*, ANUIES, and López Zarate, R. (2007). *Normatividad, formas de gobierno y gobernabilidad*. (Documento de discusión 1). UAM Azcapotzalco.

30 This section is based on Buhler and Fauvet. *La socio-dynamique du changement* y Fauvet. *La Sociodynamique. Concepts et méthodes*.

31 “There are various reasons for the power of the teaching estate. In public institutions, the vast majority of those who enter the teaching ‘career’ are guaranteed job stability during their permanence in the institution. Usually, academia performance assessments are lax and are done by immediate colleagues (which generates implicit solidarity) and are self-referring to the prevailing culture and academia standards of the institution (...) all of which guarantees broad employment stability, except in extreme cases of criminal conduct or violation of ethical norms.” In: Gómez, V. M. (with Forero and Zarur). (2001). *Op.cit.*, p. 36.

with possibilities of carrying out activities that provide them with additional income from research financing agencies or from contracts (these are the “high clergy”); c) an army of less well-trained full-time professors, contracted temporarily in light of the expansion of enrolments, but later incorporated as public employees and who make up the basis of teacher unions (these are the “lower clergy”); and d) part-time teachers who work a great many hours, especially in private institutions, making up a very heterogeneous group that can include well-qualified professionals as well as young people with less training.³²

A second frequently recurring type of academic actor, different from the above, are those clearly inserted in a professional milieu and in contact with outside public or private organizations to which they offer their services. We can represent this group by a parabolic antenna, symbolizing the openness to the outside environment. Often, these actors make up enclaves of excellence within the organization, which rarely takes advantage of their connections and skills. Often, it is the reverse: the pertinence of the university provides a “cover” of which the professional makes use in his or her principal activities. Since they are the more productive groups, they have access to external resources, thus allowing them to negotiate considerable levels of autonomy.

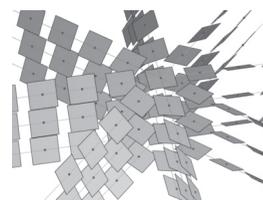


A third type of actor is made up of administrative workers and employees. Academics tend to see them as obstacles to innovation; but when an administration functions properly, they are an invaluable component. In Latin American universities, administrative functions lack professionalization, principally due to difficulties that institution has in competing to attract qualified personnel in the labour market. We can represent these actors by gears that can either aid or hinder an operation.



Finally, a fourth type of very important actor: institutional authorities

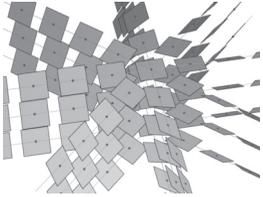
at their different levels of responsibility of the organization: rectors, vice-rectors, general secretaries, deans, directors of institutes, etc. In general, they have little power and capacity to lead changes, whether due to political, financial, or other reasons. In order to depict their responsibility in guiding the university, we represent them by holomorphic structures.



The division of these actors into four types should not be seen as a taxonomy. It is very useful in order to be able to characterize a particular university. Each of the academic units, programs, projects, enclaves, segments, structures, offices, etc., can be represented as a point between coordinates that determine its degree of openness and identity. An institution can be seen as a field of forces in balance and tension.

A particular action can modify the position of one of the actors in the system. For example, an administrative personnel training project can strengthen its identity, causing a vertical movement in the matrix. A program for improving the quality of student services can strengthen the degree of openness to the demands of direct beneficiaries, causing a horizontal movement on the matrix. Later on, this matrix will make it possible to visualize best practices in each of the quadrants, with a fifth quadrant reserved for processes to integrate them.

32 Schwartzman, S. (1998). *Higher Education in Brazil: The Stakeholders*. Published by The World Bank, Department of Human Resources. Paper series No. 28, p. 16.

+		
Identity		
-		
	-	+
	Aperture	

In the lower left quadrant we find the actors who have a low degree of identity and little openness to the environment. Typically, they are the “**bureaucrats**”. In the upper left quadrant, we have sectors with high degrees of identity, but are resistant to the influence of actors outside of their “tribe”. These are the “**artisans**” who make a cult of their labours. In the lower right quadrant we have actors with a significant degree of openness to the surroundings, their markets, with a low degree of identification with the institution, with which they maintain opportunistic interests. They are the “**mercenaries**”. Finally, in the upper right quadrant we have the authorities, who have a high degree of identification with the institution, and at the same time, a particular sensitivity to the requirements of the surroundings. They are the “**arbiters**”.

Each of these actors have their interests, mental paradigms, and symbols. Interaction between them often resembles the croquet game that Alice watches in Wonderland.

Alice thought she had never seen such a curious croquet ground in her life: it was all ridges and furrows: the croquet balls were live hedgehogs, and the mallets live flamingos, and the soldiers had to double themselves up and stand on their hands and feet, to make the arches ... to the reigning confusion was added the fact that the players all played at once without waiting for turns, quarrelling all the while, and fighting for the hedgehogs ... and in a very short time the Queen was in a furious passion, and went stamping about, and shouting ‘Off with his head!’ or ‘Off with her head!’ about once in a minute.

- ‘How are you getting on?’ said the Cat, (...)

- ‘I don’t think they play at all fairly,’ Alice began, in rather a complaining tone, ‘and they all quarrel so dreadfully one can’t hear oneself speak ... and they don’t seem to have any rules in particular: at least, if there are, nobody attends to them ... and you’ve no idea how confusing it is all things being alive.

Loosely coupled worlds

A confusing game, with multiple actors that interact with relative independence from one another, and competing for resources. The metaphor of the game returns again in a communication of James March to Kurt Weick within the context of a discussion on leadership in ambiguous situations.

Imagine that you are a referee, coach, player, or spectator of a non-conventional football game: the playing field is round, there are various arcs distributed at random around the edges, people can enter and leave the game when they wish, can kick the ball wherever they wish, can say, “its my goal” as much as they want: they entire game takes place on a unlevel field, and the game is played as if it made sense.

This is the beginning of a very influential article published by Weick in 1974 and dedicated to analyzing educational institutions as loosely coupled systems³³. More useful than classifying these kinds of systems as absurd, say Weick, is to understand organizations characterized by a low level of interaction between its parts as such in order to act better within them.

Their components, in some way, respond to one another, but in such a way that each of them also preserves its own identity and the signs of their physical or logical separation. Each of us is familiar with such situations:

- Mega-universities, made up of veritable confederations of faculties.
- The co-existence of the federal universities of Brazil, according to the description provided by Claudio de Moura Castro, of four universities: graduate, undergraduate, foundations, and teacher colleges.³⁴
- The fracture that often exists between rectors and their teams. On the one hand, the rector, and faculty deans or departmental directors on the other. An extreme example of this fracture is the situation often occurring in Venezuelan universities, when rector of one “slate” is obliged to co-habit with the vice-rector of another “slate”.
- The impotence of central services in obtaining information regarding the activities of third parties taking place in academic units.
- A powerful school disposed to defend its own student admissions system, and with sufficient means and power to do so or influence admission rules.
- Another school that is against centralizing all classes in a common building, preferring to give classes in its own facilities, in spite of this not being the most efficient use of space.
- A dean of a school of medicine with semi-autonomous department heads that control their own research funds.
- The fragmented and inflexible organization of academic programs that hinder student mobility beyond these “specialized tunnels”.

In organizations of this kind:

- Links tend to be enclosed, random, occasional, discontinuous, and indirect, with weak and slow with reciprocal effects that are weak and slow in taking place.

³³ Weick, K.E. (1976). Educational organizations as loosely coupled systems. En: *Administrative Science Quarterly*.

³⁴ De Moura Castro, C. (2005). *Un punto de vista sobre las instituciones de educación en Brasil*. Interview for: “Conversando con Directivos universitarios”, Univesia y COLUMBUS. Available at: <http://www.columbus-web.com>

- The forces of specialization are more important than those of integration; that is, the concern for the whole, its identity, and its future.
- The autonomy of each of the parts can be greater than the autonomy of the whole, and in fact is so interpreted many times when, for example, a school takes recourse to the courts in order to defend a point of view against the institution.
- The structure does not determine organizational processes, and it becomes difficult to understand how it functions merely by looking at the organizational chart.
- Changes and reforms should always win over the interests disposed to neutralize them. The natural dispersion of attention and the proposals of the members of the organization oblige any change initiative to generate significant symbolic content as a previous condition. This, however, involves an investment of time and resources that considerably enervates such reforms.³⁵

These are not failed bureaucracies; they are simply another type of organization, and one that is, “at the same time” open and closed, undetermined and rational, spontaneous and deliberate. Their good functioning requires, on the one hand, developing compensation mechanisms, and on the other, maximizing their advantages by empowering the degree of satisfaction and motivation of its employees, taking advantage of opportunities for experiment and maximizing possibilities of adapting to the environment.

In 1990, J. Douglas Orton and Karl E. Weick, identified three types of compensation mechanisms: strengthening leadership, focusing priorities, and emphasizing shared values.

But, what does it mean to direct and guide loosely-coupled organizations? How can a rector or dean influence the development an organization with various power centres and complicated political situations?

An intrinsically weak type of authority

In Latin American public universities, the major limitation for their government is not a question of a lack of autonomy, since even in cases in which it is seriously limited, this is due principally to the fact that it is the institution itself that does not want to assume the consequences of a responsible autonomy without certain guarantees of financial stability. On the contrary; the major limitation is the little power of their authorities to exercise the margin of autonomy granted by the law.

This situation of intrinsic weakness is due to the fact that the authority of central administration is derived in large measure from its components, who at the same time depend on the central authority, thus creating an ambivalent situation that nourishes the exchange of favours that underlies the exercise of their respective responsibilities.

And thus it is. The high authorities of a university organization tend to incline their decisions in favour of those who they believe are loyal. The underlying intention is to stabilize coalitions that make it possible to generate consensus. But the commitments that this produces rapidly neutralize the power of the initiative (of the authorities). As Simón Schwartzman remarks, the authorities assume their mandates with their power compromised by nearly always inevi-

³⁵ Arechavala Vargas, R. (2001). El gobierno de las universidades públicas: ¿es posible comprender un sistema caótico? In: *Revista de la Educación Superior*, número 118, abril-junio, ANUIES, p. 112.

table campaign promises.³⁶

“Rectors are criticized because they are more powerful than they should be, and are frustrated because they are weaker than they are believed to be”.³⁷

“Power is distributed unequally – and in this sense the organization adopts rules that are more autocratic than democratic – and their distribution tends to be fluid”.³⁸

As in the Möbius strip or theorem, functions are changeable. We can make use of the instruments of an analytic topology in order to characterize these kinds of situations. One can move on in an organization and believe oneself to be outside (or in the vertex of the organization) and be inside (or in a subordinate area) and vice-versa, but in reality there aren't two different sides. In other words, the flow of power circulates, making possible an inversion between different positions in the organization. Once again, we think of the labyrinth that “has no obverse or reverse” and where we see “severe galleries which curve in secret circles through the years”.³⁹

The system functions because each knows the other, and knows more or less “what its about”. The perspective that each of the components of the organization has of the *core business* is different, and therefore the goals set by authorities have a high degree of ambiguity, at times hidden in all too generic objectives.

A system of relations of this kind tends to be simultaneously **unstable and inertial**. The transition costs of any change in the historic distribution of attributions and resources is so high that authorities must carefully gauge their forces before launching themselves into a new battle.

Who has the say in public universities? asks Claudio de Moura Castro. “The rector is like a dinosaur jockey. There he goes, merrily sitting astride the dinosaur, brandishing his whip, and making as if he is controlling the beast. But he knows very well that he isn't.”⁴⁰

With the intrinsically weak character of authority, strong leadership is sometimes expected. But, what is the rector's real margin for action? Curiously, it lies in the very fluidity of the structures he or she directs, as well as his or her central position within them that provides for a margin of manoeuvre.

Authorities are fragile, but are not without power, which is predominantly informal, and has two principal sources. First, that of being a mediator in conflicts between academic units. “The rector is a negotiator, someone who manoeuvres between blocks of power, while at the same time trying to establish a line of possible action”.⁴¹ The second source of power comes from the fact of being the principal interlocutor with the educational authorities who provide funding.

These two sources of informal power are reinforced by the rector's will and political skills. The rector might have the time and energy to dedicate to the position, and it is very possible that it was political skills that brought the rector to a position of responsibility.⁴²

This characterization does not imply a disregard of the fact that, often, the political ability

36 Schwartzman, S. (2005). *A nova reforma do MEC: Mais polimento, mesmas idéias*, p.25.

37 Cohen, M. & March, J. G. (1976). Decisions, presidents, and status. Cited by: Mintzberg, H. (1983). *Power in and around organizations*, cap. 22.

38 Mintzberg, H. (1983). *Power in organizations*. Prentice Hall.

39 The images come from two poems of Jorge Luis Borges, *Laberinto y El laberinto*, included in his complete works, volume II, pages 364 and 365.

40 De Moura Castro, C. (2005). *Da arte de governar o ensino superior*. Presented at the 7º Fórum Nacional: Ensino Superior Particular Brasileiro – FNESEP.

41 Baldrige, J. V., Curtis, D. V., Ecker, G. and Riley, G. R. (1978). *Policy Making and Effective Leadership. A National Study of Academic Management*. San Francisco: Jossey-Bass Publishers. Cited by: Mintzberg, H. (1983). Cap. 22.

42 Mintzberg, H. (1983). Cap. 22.

of a rector can tend to mask the intrinsically weak nature of the post's authority. In these kinds of situations, the power of rectors can be discretionary and be based on the management of resources and the support of central educational authorities.

An empirical way of identifying the role of the directors of loosely coupled organizations is to analyse their use of time, which is their principal resource. What do they do? What don't they do? Questions of this kind tell us some interesting things:

- Given the ambiguity of the situations, a good part of their time is surely spent negotiating agreements with different levels of the organization, a kind of permanent reconstruction of social reality.
- They daily receive numerous requests and initiatives that result in “an overload of decision systems due to an excess of proposals and a fierce competition for the resources involved in their implementation”.⁴³
- The management of collegial organizations, natural areas for the defence of corporative interests and the exchange of favours, can consume an enormous part of a rector's agenda.
- As arbiters, units of the organization appeal to authorities in cases of internal conflicts or to an outside authority for mediation. Often, rectors find themselves in the position of “fire fighters” without having the resources to “put out the fires”. These kinds of situations reinforce the heroic image of “*primus inter pares*”, but that which is urgent tends to take the place of that which is important.
- Negotiation with Higher Educational authorities in order to defend past budgets or to obtain new resources is another of the activities that consumes much time on a rector's agenda.

Institutional customs houses

As we have seen, another form of integration in loosely coupled organizations is through focusing on institutional priorities. Considering the noted limitations of uni-personal entities to make “strong” decisions, let us consider for a moment the situation of collegial organizations.

The collegial form is very much rooted in academic traditions [...]. Undoubtedly, it offers advantages to the extent that it facilitates a high degree of internal consensus and guarantees great autonomy at the academic level. But on the other hand, it hinders institutional management in various ways: decision-making processes often become heavy and slow; the corporatist interests of the different levels that participate in collective entities tend to weigh more than the general interests of the institution; the need to arrive at broad agreements in order to make decisions leads to restricting possible alternatives, which on many occasions produces a decline of efficiency in the decision that is finally adopted; the responsibility for decisions taken – in consequence – is diluted by the “logic of the situation”, making it difficult to correct mistakes for which no one clearly takes responsibility; finally there is a tendency to fill with political content decision-making processes that in

⁴³ Arechavala Vargas, R. (2001). El gobierno de las universidades públicas: ¿es posible comprender un sistema caótico? In: *Revista de la Educación Superior*, número 118, abril-junio, ANUIES.

fact should only be of a technical nature.⁴⁴

For this reason, collegial entities face serious limitations in defining the direction of an institution. In the case of Mexico, for example, one notes an exhaustion of large collegial bodies. As the maximum entity of the institution, a collegial body has the tendency to approach any subject, independently of whether the subject is of its competency or not, with the resulting impossibility to carefully analyze all of the subjects that are of its competence (due both to their multiplicity and to the number of people who make up the entity), which end up being treated superficially.

In practice,

Collegial entities have functioned as control valves for dealing with, and on occasion neutralizing institutional conflicts, for commenting on persistent problems in the institution that bring new members into the discussion, as a venue for informing oneself regarding rumours of the administration, for treating and co-validating honorific designations, and to lend solemnity to ceremonies, particularly in the rector's report. This mode of functioning relegates the analysis of "academically important" subjects. Consequently, these bodies tend not to be the "maximum authority", but rather an "institutional customs house" for legalizing decisions taken in others spheres.⁴⁵

Even in the cases in which such authority is exercised,

the extreme autonomy of collegial organizations in academic questions, and their slight regard administrative-financial questions have resulted in a weakening institutional leadership and of their capacity to establish institutional planning and assessment programs with concrete results.⁴⁶

Such autonomy also refers to the absence of external pressures.

Attaining a certain balance in internal functioning in terms of interests, structures, and procedures, university institutions will continue to function in the same way in order to preserve the status quo achieved. It is in this sense that one can classify university institutions as conservative organizations, due to the low permeability to receiving outside influences.⁴⁷

This means that expectations for change are often placed upon pressures from the environment, particularly those coming from central educational authorities.

Universities have a defect, and I don't know if it is the same for all of them, but we should recognize that change agents, the levers that produce change, are often not internal, but rather that profound changes come through external demands. This is bad, but it is the case.⁴⁸

44 Bricall, J. M. (coord). (2005). *Informe Universidad 2000*. Cap. VIII, p. 405. An exhaustive discussion on the subject of this chapter may be consulted in "Gobierno y administración de las universidades". Interview for: "Conversando con Directivos universitarios", Universia y COLUMBUS. Available at: <http://www.columbus-web.com>

45 López Zarate, R. (2007). *Normatividad, formas de gobierno y gobernabilidad*. Discussion document 1. UAM Azcapotzalco., p. 3

46 Leal Lobo Silva filho., R. (2006). A Educação Superior no Brasil. In CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 47.

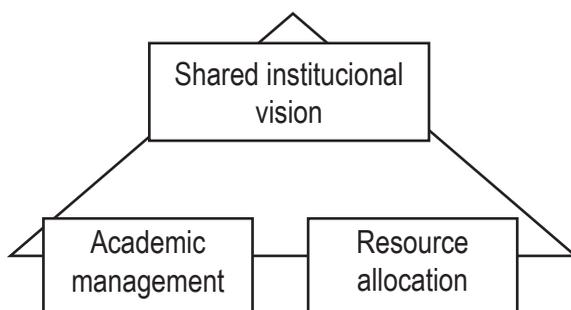
47 Villareal, E. (2000). Innovación, organización y gobierno en las universidades españolas, p. 71, cited by Víctor Manuel Gómez, Carlos H. Forero y Xiomara Zarur. *Op. cit.*

48 Kandel, V. (2005). *Formas de gobierno en la universidad pública: reflexiones sobre la colegiación y la democracia*. Employee interview, May, 2003.

Lost links

In our opinion, loose-couplingness, a weak kind of authority, and the impotence of collegial organizations largely explain the governance difficulties experienced by public universities in Latin America. In spite of their potential in terms of human resources, they behave as unstable and inertial organizations, within which there exist enclaves of excellence.

Up to this point, we have seen the lack of linkage as a result of the coexistence of academic entities with weak institutional identification and of actors with different perceptions of the organization and its objectives. One may also see the lack of linkage as the breach between three key functions that, in theory, should make it possible to simultaneously energize and stabilize the organization.



These three functions are: the development of a shared institutional vision, academic management, and resource allocation. Governance may be seen as a triangle between these functions.

Shared institutional vision: is what moves and institution forward. It may be assimilated into a strategic decision process, but it is not a strategic plan per se (which is often a thick document full of platitudes that represents the views of a limited number of people, or a compilation of plans from academic units.⁴⁹) It has a political dimension (where are we going?) and a technical dimension (how do we go there?).

Obstacles: the first great obstacle to achieving a shared vision in public universities in Latin America is that of politization, the non-cohesion of values, the intervention of outside political forces. In cases of countries with important political conflicts, (the extreme example is Colombia), this factor is exacerbated⁵⁰. From politization comes the stipendiary utilization of resources⁵¹. We can point to other obstacles: institutional paralysis; the search at all cost for “balances” that neutralize each other; vague or disputed goals; institutional fragmentation into corporative interests (differentiation WITHOUT integration); the parliamentary nature of collegial organizations; the lack

49 Keller, G. (1983). *Academic strategy: the management revolution in American Higher Education*. Baltimore, Md. Johns Hopkins University Press, p. 140.

50 In Colombia, it is common to find conflicts caused by the rector's designation process in various universities: Distrital, Cauca, Industrial de Santander, Pedagógica Nacional, Surcolombiana, Córdoba, Cartagena, Antioquia, etc. “In some cases, this process has been accompanied by various violent demonstrations such as work stoppages, blockage of entry to installations, temporal retention of employees, pressures and threats to physical integrity, etc. In others, there have been various manifestations of “symbolic” violence against particular candidates.” Gómez V. M., Forero C. H. y X. Zarur. (2000) *Gobierno y Gobernabilidad en las universidades públicas, Proyecto Ascuá Conciencias*.

51 “During certain moments of political and cultural irrationality, the idea – and worse – the practice has spread of “dividing” university prerogatives in a kind of proportionality with political forces active at the national level. Thus, one has arrived at the incredible aberration of saying in a university that a particular school belongs to party “x”, or that such and such chair should be given to party “z” ... Under no conditions can the university apparatus be handed over to old customs such as the “spoils system” carried out under Jacksonian democracy.” Vanossi, J. R. (2007). *¿Necesidad, oportunidad, metas y orientaciones de una legislación orgánica para las funciones universitarias?* Communication read at the September 3, 2007 session of the Academia Nacional de Educación, of which he is a titular member.

of separation and imbalance between strategic guidance functions; execution and administration in government organizations; frequently redundant competencies of each entity with authority; overloaded and non-hierarchical agendas; and the lack of instruments for monitoring the fulfilment of plans and projects. As a consequence of all of these factors, one should not be surprised at the failure, in general terms, of planning efforts: “either plans are irrelevant, or those who should be involved are not disposed to accept them and participate in them”.⁵²

Academic management: Higher Education is a human resources business: a higher percentage of its budget is spent on teachers. The quality of an institution is judged principally by the quality of its human resources. Key functions are: attraction and retention of professors/researchers; focus of academic strategy; creation/suppression of academic programs; curricular reform processes; student admission policies; their monitoring through the course, etc.

Obstacles: difficulty of long-range planning; limited autonomy for the management of human resources; rigidity of academic courses; disciplinary interests; academic incrementalism; and the creation of academic programs responding to internal, rather than external demand.

Academic ideology is a practically insurmountable barrier. University actors are accustomed to dress their actions and decisions in the clothes of the principles of academic life: autonomy, teacher freedom, “collegial” decisions, the primacy of the academic over the political.⁵³

Resource allocation: the control of resources can be a compensation for loosely-coupled organizations. The budget preparation and approval processes are critical: the allocation of resources within universities and its congruence with institutional priorities within a context of centralized or decentralized management of resources; academic units as cost centres; re-balancing mechanisms; the capture of the institution’s own funds; foundations or similar entities for management of these funds.

Obstacles: limited financial autonomy; insufficient financing; high proportion of budgets for payment of personnel or current costs; incongruence between the entities that receive resources and those that spend them; lack of analysis of the real costs of operations and little room for manoeuvre. In situations of reduction of resources, the components of the organization tend to use history as the fairest guide for resource allocation. Cuts throughout the organization tend to preserve the relative position of each unit. All attempts to change priorities in times of financial crisis are seen as destructive and unfair, and the equanimity of the authorities, rather than their ability to guide the institution, is seen as their principal virtue.

The key, and the most difficult task facing universities is to bind, link, and relate the three processes. As an example: external institutional assessments of the National University Assessment and Accreditation Commission (CONEAU) have identified a habitual lack of coordination between different levels (institutional, academic, budgetary, scientific, extension, etc.).⁵⁴

Consequently, to use the words of Peter Drucker, “universities are over administrated and undermanaged”⁵⁵, and one can observe various pathologies.

• **An institutional vision without a correlate in academic management is pure theatre.**

52 Laverde, M. (2003). Institutional Analysis of the Tertiary Education Sector. Anexo II in: *Tertiary Education in Colombia. Paving the Way for Reform*. A World Bank Country Study, p. 96.

53 Arechavala Vargas R. *Op. cit.*, p. 116.

54 Garcia de Fanelli, A. M. y Trombetta, A. (2004). *Debilidades del sistema universitario según las evaluaciones externas de la CONEAU*, IIPE. (unpublished).

55 Drucker, P.F. (1997). The future that has already happened. In *Harvard Business Review*. September–October: 20–24.

Often, institutional plans are limited to coming from the reflection of a small group, without consequences for the academic unit level.

- **An institutional vision without a correlate in the allocation of resources is poetry.** All strategic planning should culminate in a budget. The problem is when an institution has few uncommitted funds. There are two alternatives: obtain additional funds and use them as a lever, or foster internal debate in order to determine a re-allocation of resources. Competitive funds are an alternative, not always taken advantage of by institutional authorities who prefer to examine all proposals arise rather than foster a debate on their prioritization. The above-cited review of external assessments of CONEAU notes the precariousness of the formulation of plans for equipment and work on laboratories, buildings, and libraries of academic institutions.
- **Narrowly focused academic management without regard to an institutional project is a comedy of manners.** A typical venue that expresses the lack of association is the creation of new study plans when these have no correlate with a clearly-perceived demand, nor with key university strategy. The above-cited review of external assessments in Argentina noted: a) the relative lack of academic planning related to study plans, and the offering of courses with degree studies weakly connected to graduate cycles; b) lack of complementarity between the aggregate of academic offerings; c) relative lack of academic organization in the tasks of scientific research, which tend to be developed without defined lines or priorities that justify them, and with scant or no complementarity of institutional and regional levels; d) low institutional impact of the tasks of extension and of transfer.⁵⁶
- **Inertial resource allocation is a tragedy.** The re-allocation of resources tends to be very conflictive, above all during times of crisis when historic criteria are the last resort in defence of prerogatives won in the past.
- **Academic management without the allocation of resources is rhetoric.** An analysis of the management of public institutions of Higher Education in Brazil “indicates that academic decisions of collegial bodies have little regard for administrative-financial restrictions, that are centralized in the hands of rectors or directors who liberate resources to the extent of their availability. This indicates a lack of strategic and financial/budgetary planning”.⁵⁷ The review of external assessments undertaken by CONEAU confirms the virtual absence of cost studies of courses and academic programs.

3. Reforms in the palace of King Minos: new public policies

The previous section gives us a simplified portrait of the governing of universities. It necessarily passes over the enormous variety of situations, both of systems as well as of institutions. But it does allow us to focus attention on some critical points of organization behaviour. It is worthwhile to now consider the development of the scenario in which the institutions have found themselves during the last two decades. Taking into account the public character of the organizations that we are analyzing, we can posit that the evolution of the forms of university government is sensitive to the evolution of public policies.

56 García de Fanelli, A. M. y A. Trombetta. (2004). *Debilidades del sistema universitario según las evaluaciones externas de la CONEAU*. *Op. cit.*

57 Leal Lobo Silva Filho, R. (2006). A Educação Superior no Brasil. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 47.

Governments, faced with the need of improving university performance, for all of the reasons already known, and discarding the possibility of inducing change through political imposition, began at the beginning of the 1990s to develop new policies. The instruments at their disposal were of three kinds: a normative change, the introduction of systems of assessment and accreditation, and application of new financing mechanisms.

Normative changes

After a long period of dictatorships during which the major concern was to control universities “politically”, one might well expect a wave of legislative reforms in the area of Higher Education. As the following table demonstrates, that is not so.

New Higher Education laws in Latin American countries

Year	Country	Law
1945	Guatemala	Law of the Universidad of San Carlos of Guatemala
1957	Costa Rica	Fundamental Law of Education (+ university legislation)
1958	Uruguay	Law N° 12.549 creating the Universidad de la República (UOFLAR) as an autonomous entity
1968	Brazil	Law N.º 5.540, on university government, recognizes government entities and establishes guidelines for their composition
1970	Venezuela	Law of Universities
1973	Mexico	Federal Education Law
1982	Ecuador	Law of Universities and Polytechnic Schools
1983	Peru	Law 23.733 University law
1984	Uruguay	Law 15.661 Authorizes functioning of private universities
1989	Honduras	Decree N° 142-89. Law of Higher Education (+ Constitution that creates the la Universidad Nacional Autónoma of Honduras, UNAH).
1989	Brazil	Decree 29.598 to foster university autonomy in the State of São Paulo
1990	Nicaragua	Law 89. Law of Autonomy of Institutions of Higher Education
1990	Chile	Law 18.962. Constitutional Law of Teaching (LOCE)
1991	Chile	Law 19.054. Modifies the LOCE Particularly article 52° and paragraph 6° of title III, regarding dependent institutions of the Ministry
1992	Colombia	Law 30, organizing the public service of Higher Education
1993	Paraguay	Law 136. Law of Universities
1994	Bolivia	Law N° 1565. Education Reform Law (+ National Constitution and university laws)
1994	Chile	Law 19.305. Modifies university statutes for election of rectors and establishes norms for the same
1995	Argentina	Law 24.521 of Higher Education
1995	Panama	Law 34 introduces modifications to Education Law N° 47 of 1946
1995	Brazil	Law 9.192, defines process for choosing federal university officials
1996	Brazil	Law 9.394, containing education guidelines
1996	El Salvador	Decree N° 917. General Education Law
1999	Chile	Decree No. 51 of the Ministry of Education. Creates national accreditation commission for undergraduate programs (CNAP)
1999	Chile	Decree 225 of the Ministry of Education. Creates a commission for assessment of the quality of graduate programs of autonomous universities (CONAP)
2000	Ecuador	Law 2000-16. Law of Higher Education (April 13)

2002	Costa Rica	Law 8.256 of the National Higher Education Accreditation System (SINAES)
2003	Peru	Law N° 28.044 of General Education
2005	Chile	Law 20.027. Establishes norms for the financing of Higher Education studies (credits)
2006	Peru	Law 28.740, of the National Quality Assessment, Accreditation, and Certification System
2006	Chile	Law 20.129 Establishes a national quality assurance system for Higher Education
2006	Paraguay	Law 25.29, modifies articles 4°, 5°, 8° y 15° of Law N° 136/93 “of universities”

This list shows us that, in the last 20 years, only 13 countries have modified their Higher Education laws. The list is reduced to five countries if we consider the last 10 years.

This vocation for reform is limited compared to the same time period in Europe⁵⁸. It is explained principally by the habitual lack of consensus in legislatures which often, under pressure from universities, accumulate an enormous number of bills or endlessly debate their approval. Confronted with this situation, governments can decide not to take the path of legislative change, considering as well that it is very probable that this would not help to solve problems that are structural. On the other hand, governments may not feel strong enough to initiate debates that can provoke strong political opposition from students and teacher unions, and so simply prefer to not open a front of conflict that can have a great impact on public opinion.

Often, the result is obsolete and anachronistic legislation. In Mexico, for example, “constitutional modifications in the last 50 years have said nothing about education, with the exception of the inclusion of autonomy in 1980. The coordination law dates from 1976”.⁵⁹

The major exceptions are Argentina, Brazil, Chile, and Colombia. These four countries, particularly Argentina and Chile, have opted for important changes in Higher Education laws. Chile did so in 1990. With the return to democracy, a commission was created in order to discuss whether the country should continue with modifications the system created by the military ten years before, or whether to return to the system in place during the last constitutional government. Chile opted for the former.⁶⁰ Argentina made important changes in 1995 with a law granting broad autonomy to universities, and in addition to other important changes, created a assessment and accreditation system.⁶¹

Regulatory frameworks

Independent of their greater or lesser legislative vocation, governments have attempted to regulate the functioning of these institutions through the introduction of additional regulations. The underlying paradigm is, if institutions are granted a greater degree of autonomy, and if they are submitted to an assessment of results, introducing an adequate mix of financial and other kinds of incentives, universities should increase their quality, relevance, and efficiency.

58 See Samoilovich, D. (2007). *Escenarios de gobierno en las universidades europeas*. Colección documentos CyD – 8/2007. Fundación CyD. Barcelona, España.

59 López Zarate, R. (2007). *Normatividad, formas de gobierno y gobernabilidad*. Discusión document 1. UAM Azcapotzalco, pp. 1 y 2.

60 Brunner, J. J. (2005). *Más allá del mercado: hacia una segunda reforma de la educación superior en Chile*. Interview for “Conversando con Directivos universitarios”, Univerisia y COLUMBUS. Disponible: <http://www.columbus-web.com>

61 Del Bello, J. C. (2005). *Políticas públicas para la institucionalización de una autonomía responsable*. Interview for: “Conversando con Directivos universitarios”. *Op. cit.*

Autonomy

In order to analyze this variable, we can determine the degree of autonomy of the institutions of a given country by considering five major principles:

- Academic autonomy – to determine the academic structure and approve courses and course content
- Autonomy to determine the number and procedure of student admissions
- Autonomy to sign and rescind contracts with academic personnel, and to fix salaries
- Autonomy to allocate and to re-allocate budgetary resources, including those for personnel, to be the owner of their buildings and equipment, and to assume credits
- Organizational autonomy – to determine their governmental entities, their composition, and mode of election or designation

The table on the following page shows these five categories in ten criteria for nine countries of the region, differentiating, in the cases of Brazil, Chile, and Mexico, between different types of institutions.

According to these data, the principal limitations of autonomy are found in five of the ten criteria considered: organizational autonomy, allocation of resources, assuming credits, signing and rescinding contracts with academic personnel, and fixing salaries.

Without ignoring the important difference between countries – unthinkable situations in one country may be seen as normal in another – in general terms, Latin American universities have a relatively broad margin of autonomy. The major exceptions are the federal universities in Brazil, the technological institutes in Mexico, and to a lesser extent, universities in Colombia. In the case of the Brazilian federal universities⁶², in spite of an announcement by the ministry in 1999 in the sense of granting them full autonomy, as we will see, this has never been put into practice.

Assessment and accreditation systems

The second variable of the regulatory framework is the creation of national assessment and accreditation systems. As we have seen, their generalization basically follows three fundamental factors: the rapid expansion of tertiary level enrolments during the 1980s and 1990s, with the resulting pressure on public resources; the explosive growth of private institutions and the desire to “protect the market” on the part of the more established universities; and greater internationalization of Higher Education, accompanied by the need to maintain a certain level of international recognition in order to facilitate the mobility of students and academic cooperation agreements.

Financial incentives

The third variable of regulatory frameworks are financing models. In the region, historical funding continues to be the point of reference and the dominant model. In spite of efforts by some governments, the traditional model continues to be the predominant one, based on inertial allocations or those negotiated politically.

62 Roberto Lobo, in referring to the public system, says that “this sector, principally in the federal area, suffers from a profound managerial infantilism caused by the absence of autonomy”. See: Leal Lobo Silva Filho, R. (2006). *A Educação Superior no Brasil*. In CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 5-6.

DEGREE OF UNIVERSITY AUTONOMY IN LATIN AMERICAN PUBLIC UNIVERSITIES
(Selected countries)

Criterion evaluated ← Country / Type of university ↑	Creates its governmental entities, their composition and mode of election	Determines its academia structure	Approves courses and course content	Assigns and re-assigns budgetary resources, including for personnel	Owner of its buildings and equipment	Assumes credits	Signs and cancels contracts with academia personnel	Determines salaries	Determines student numbers and admission procedures	Decides on tuition payments
Argentina	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Brazil/ Federal	P	Y	Y	P	Y	N	N	N	Y	N (1)
Brasil/ Statal	P	Y	Y	V	Y	N	Y	V	Y	Y
Chile/ Traditional Statal	N (2)	Y	Y	Y	?	P (3)	N	?	Y (4)	Y
Chile/ Traditional and Private	Y	Y	Y	Y	Y	Y	Y	Y	Y (4)	Y
Colombia/ National and Territorial	P	Y	P	Y	Y	P (5)	Y	N	Y	Y
Costa Rica	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mexico/ Federal Autonomous	Y (6)	Y	Y	Y	Y	Y	Y (6)	Y (6)	Y	Y
Mexico/ Autonomous and Statal	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mexico/ Int. Technology	P	P	Y	N	Y	Y	P	N	N	Y
Panama	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Peru	N	Y	Y	P	Y	N	Y	N	Y	Y
Uruguay	Y	Y	Y	Y	Y	?	Y	Y	Y	Y

Symbols: **Y** Autonomous **P** Partial autonomy **?** Don't know
 N Not autonomous **V** Variable

Notes:

- (1) With exceptions
- (2) Except the Universidad de Chile ?
- (3) Only during the duration of the mandate of the president
- (4) Except the procedure (national examination)
- (5) Except the Universidad Nacional, which has full autonomy to assume debt
- (6) Except the Instituto Politécnico Nacional

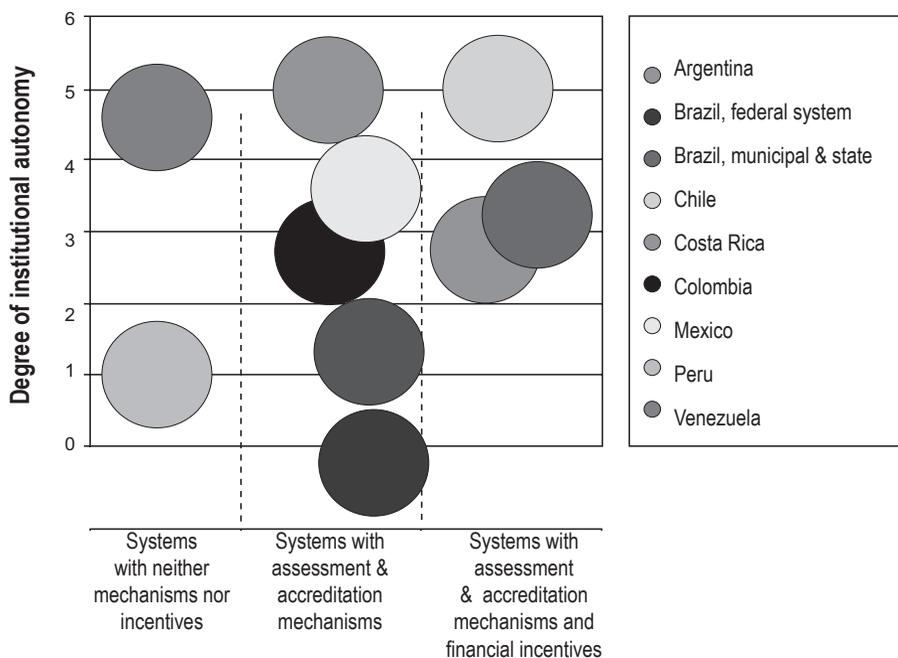
Source: developed by the author.

There is no doubt that the viability of incentives occurs at a certain threshold of financing. Public Higher Education budgets in Latin America practically doubled between 1995 and 2002, but the expansion of enrolments caused the regional average spent per student to go from \$2,024 dollars to \$2,381 dollars during the same period. In regard to spending as a percentage of GDP, this continues to be low – an average of 0.87%, with variations ranging from 0.14% in El Salvador to 2.27% in Venezuela.⁶³ Low public investment explains, in general, the difficulty of introducing new models of financing, which have generally been associated with loans from international entities. Their principal modalities have been competitive funds, centralized discretionary funds, financing for specific purposes, pluri-annual contracts, and management contracts. All of these are quasi-market mechanisms.

Without wishing to analyze in detail the reforms introduced during the last 20 years, it may be useful to refer briefly to them, keeping in mind the degree of implementation of these three variables.

Let us imagine a conceptual map (see the following page) in which in the vertical axis we represent the degree of institutional autonomy granted to institutions, expressed by the sum of the powers attributed to them, and in the horizontal axis the implementation of processes of assessment/accreditation and of financial incentives. Here, we can represent the cases of the countries to which we will refer below.

Conceptual framework of recent Higher Education reforms



Source: developed by the author.

63 García Guadilla, C. (2005). Financiamento de la educación en América Latina. En GUNI-UNESCO, *Educación Superior en el Mundo 2006. El Financiamento de las Universidades*.

A genealogy of reforms

Chile: The discovery of quasi-markets

Reform in the 1980s established a mixed self-regulatory model of institutions, combining centralized financing features with the presence of competitive market mechanisms. The democratic government that took power in 1990 adopted a “continuity with reform” strategy, establishing a new fundamental constitutional Higher Education law, and putting into place a process for the supervision of new public universities and professional institutes under the responsibility of the Higher Education Council. At the same time, the government began to gradually increase public funds for Higher Education, diversifying the financing modalities⁶⁴. For the first time, a quasi-market mechanism was introduced in Latin America.

The new financing model stimulates competition between universities. Financing continues to be public, but the state acquires services from independent suppliers. User decisions intervene in the transaction, whenever they possess the necessary information, and may enter and move within the system (in which, to date in Chile, is not provided by the institutions themselves). The idea is to increase the efficiency and efficacy of the system, with the institutions, in principle, being controlled by their users. In contrast to a centralized system, integration does not occur through bureaucratic decisions, but rather through competitive mechanisms.⁶⁵

Until 1980, public financing represented around 80% of the income of the sector; in recent years it has not reached 30% for the system as a whole. The importance of private financing is due to the “combined effect of four factors: (1) a system with a high proportion (more than half) of enrolment in institutions that are financed exclusively or principally by the market; (2) relatively low fiscal spending on institutions of Higher Education, which receive state subsidies; (3) dedication of part of this spending to a group of private universities (traditional ones and others derived from them) that receive public contributions under the same conditions as state institutions, and (4) the generalized charging of tuition for Higher Education in institutions that receive fiscal support and those that do not”.⁶⁶

Currently, fiscal contributions are administered through the ministry of education by means of direct transfers that correspond to 45% of the contributions received by the institutions, and which are only received by universities belonging to the Council of Rectors (includes 16 state universities and nine private institutions founded before 1980).⁶⁷ Other state funds come from indirect fiscal contributions, that represent 7%, and are based on a quartile of best results in a selection test.⁶⁸ On the other hand, student aid represents 35% of contributions, and is granted through a system of scholarships and credits that are received directly by the institutions. There is also another set of state funds, in general competitive, that are granted

64 Brunner, J. J. (coord.) (1994). *Educación Superior en América Latina – Una agenda de problemas, políticas y debates en el umbral del año 2000*. CEDES. Buenos Aires, Argentina. Available at: <http://bibliotecavirtual.claco.org.ar/ar/libros/argentina/cedes/brunner.rtf>

65 Samoilovich, D. (2007). *Escenarios de gobierno en las universidades europeas*. Colección documentos CyD – 8/2007. Fundación CyD, p. 11

66 Brunner, J. J. (2005). “Transformaciones de la Universidad Pública”. In: *Revista de Sociología*, No. 19, Chile. Available at: http://mt.educarchile.cl/archives/UPub_blog.pdf

67 Direct fiscal support “consists of a freely-available subsidy allocated by using 5% historical criteria and 5% depending on annual efficiency indicators. The indicators are based on the proportion of academics with a graduate degree, the number of projects, and number of publications indexed” González, L. E. (coord.) (2006). *Educación Superior en Iberoamérica: El caso de Chile. Op. Cit.*, p. 61.

68 Indirect fiscal support “is an indirect demand subsidy intended to encourage attaining the 27,000 higher points in a university selection test (of a total of 180,000 for the test). This benefits public or private institutions that due to their quality recruit better students” González, L. E. (coord.) (2006). *Educación Superior en Iberoamérica: El caso de Chile. Op. Cit.*, p. 61.

for research and for infrastructure improvements.

If one considers state sector contributions alone, between 1999 and 2003, these fell by 0.2%, taking GDP as a reference. On the other hand, contributions from the private sector increased from 1.3% to 1.9% during the same period.⁶⁹

The major competitive fund is the Quality Improvement and Equity in Higher Education Program (MECESUP), financed with state funds and a World Bank credit. Its resources are granted at the undergraduate and graduate levels, and some of the funds are also open to private entities. The program has transferred more than 250 million dollars for investments, increases in highly specialized human resources, and curricular reforms in Higher Education. The Institutional Development Fund (FDI) is another competitive fund with aims similar to those of MECESUP, and which has gradually diminished as the MECESUP program has been strengthened. There are other competitive funds for financing research activities, innovation, development, and art. Among these are: the National Scientific and Technological Development Fund (FONDECYT), the Fund for Fostering Scientific and Technological Development (FONDEF), the National Regional Development Fund (FNDR), the National Culture and Arts Fund (FONDART), the National Fund for Production and Technological Development (FONTEC), the Priority Areas Fund (FONDAP), the Fund for Agrarian Innovation (FIA) and others connected to ministries and other public agencies.

In 2006, legislation was approved that established a national quality assurance system, linking financing to the results of assessments and accreditation.

The establishment of quality assurance mechanisms followed a long path that was not without difficulties. In the beginning it was limited to recently created private and public universities, and the traditional universities saw it as a market protection mechanism. But its application has been gradually generalized both for institutional accreditation and for programs.

The major public impact of the CNAP (National Undergraduate Programs Accreditation Commission) lies in its accreditation decisions at the institutional level.

Number of Accredited and Non-Accredited Universities

Accreditation April 2006					
Status	State univ.	Private univ. CRUCH	Private univ.	Professional institutes	Technical training centres
Accredited	12	9	13	6	4
Not accredited	3	0	4	1	1
Not presented	1*	0	12	41	112
TOTAL	16	9	39	48	117

Source: CNAP Agreement, Jan.20, 2006.

(*) currently in the accreditation process

In terms of accreditation of courses, the achievements have been significant, with 570 courses having been submitted to accreditation at the undergraduate level only. One of the factors that has been important in motivating institutions to submit to accreditation is the possibility that is opened to them of receiving competitive state funds, and that their students can opt for private loans with state backing. Accredited courses account for a higher percentage

69 González, L. E. (coord.) (2006). *Educación Superior en Iberoamérica: El caso de Chile. Op. Cit.*, p. 60.

of total enrolment in the system that includes the most prestigious universities in the country, and that therefore has an important impact on the system.⁷⁰

Undergraduate enrolment coverage compared to the system as a whole (2005)

State	Total enrolments		N° of institutions
	N°	%	
Accredited	379,854	68	44
In process	63,829	11	16
Not accredited	62,186	11	9
Outside the process	57,680	10	23
Total System	563,549	100	92

Source: González y Torre (2006). *Acreditación y fomento de la calidad. La experiencia chilena de las últimas décadas*. Mimeo.

In terms of graduate program accreditation, the National Graduate Program Accreditation Council (CONAP) has accredited 174 graduate programs of a total of 584 (469 masters programs and 115 doctoral programs).

These accreditations have introduced in the institutions:

- The development of an institutional culture for assuring the quality of different levels of training,
- The creation within institutions of Higher Education of “entities” the function of which is continuous quality assurance,
- The declaration, on the part of authorities, of institutional policies in this direction.

The major obstacles to this process have been⁷¹:

- Proposed legislation that has been subject to innumerable amendments in the legislature,
- A reduced contribution of GDP to Higher Education,
- Significant costs that must be financed by the institutions themselves.

It is interesting to note that these changes in public universities did not contemplate modifying the processes for selecting rectors, deans, heads of departments, schools, or institutes, which is usually carried out by their academic peers. Universities have relative organizational autonomy to make decisions regarding their government, with the exception of the participation of students, except for the Universidad de Chile.

The Chilean experience had an important impact on the Higher Education debate in other Latin American countries, principally through a broad research project financed by the Ford Foundation from 1990 to 1995, with the participation of researchers from Argentina, Brazil, Chile, Colombia, and Mexico.⁷²

Colombia: an accreditation system without financial incentives

The major merit of the 1992 Colombian reform is that it created a quality assessment scheme that broke away from the bureaucratic control without academic referents current at that time, and

70 González, L. E. (coord.) (2006). *Educación Superior en Iberoamérica: El caso de Chile*. Op. Cit., p. 21.

71 González, L. E. (coord.) (2006). *Educación Superior en Iberoamérica: El caso de Chile*. Op. Cit., p. 24.

72 Brunner, J. J. (coord.) (1994). *Educación Superior en América Latina – Una agenda de problemas, políticas y debates en el umbral del año 2000*.

which had produced a disordered proliferation of academic programs of varying quality.

With the effective beginning of the National Accreditation System, there began a “change of paradigm” in quality assessment when a significant number of institutions decided, within a perspective of self-regulation, to submit their academic programs to voluntary accreditation in order for the attainment of quality levels to receive public recognition.⁷³

After 2000, the system continued to develop thanks to the establishment of basic quality standards for undergraduate and graduate programs, the stimulus of voluntary accreditation of both programs and institutions, and the establishment of quality examinations of Higher Education. At the same time, the Labour Market Observatory was created as well.

By November, 2005, there were 367 undergraduate programs (46% from public universities) accredited, and 10 universities institutionally accredited.

The Colombian Institute for the Support of Higher Education (ICFES) changes recently, guiding its mission principally toward student learning assessment. State examinations for entrance to Higher Education are under its responsibility, as well as the ECAES (Higher Education Quality Examinations), that assess knowledge and skills of students in their last year of training in different professional areas. The ECAES contribute effectively to the curricular assessment of academic programs, and offer information on the strengths and weaknesses of these programs in terms of the results of professional training.

The Higher Education Quality Assurance Program of the country has been designed formally, but awaits greater consolidation and integration. Its principal achievement has been to activate the capacity of academic institutions to regulate themselves and to commit themselves autonomously in their improvement processes in order to guarantee the delivery of quality services.

However, the system did not include implementation of an incentive system. Law No.30 of 1992 established automatic financing of public universities, without considering management or quality criteria. In this context, the finance ministry and planning department granted an annual sum to the National Ministry of Education (approximately 1% of GDP) that is indexed according to constant 1993 prices. Public universities distribute the amount internally through their Supreme Councils, which are the maximum authorities with decision power within universities. In the case of municipal or departmental universities, resources are allocated according to the budgets of territorial entities (municipalities and departments).⁷⁴

The National Ministry of Education proposed a model that sought to emphasize competition between universities, understood as a zero-sum game in which each year a percentage of a budget shared by all universities would be progressively discounted and granted to those institutions that achieved the best performance according to parameters determined by the aforementioned ministry. The model proposed that in the first year, 4% would be discounted, the second year 8%, and the third year 12%. Application of this model would have required changes in the internal budgetary administration of universities, since it assumed an agreement among academic units regarding performance goals and regarding an institutional project.

The model was subjected to various criticisms. The first was that weight that it granted to coverage indicators rather than quality indicators, which would have resulted in causing universities with more complexity and costs to lose resources, and would have placed at risk the

73 Orozco Silva, L. E. (ed) (2006). Educación Superior en Colombia. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007.

74 Orozco Silva, L. E. (ed) (2006). Educación Superior en Colombia. En: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p.65.

financing of the investments made by these institutions.

But beyond the polemic regarding indicators, there was on the part of universities uncertainty regarding the financial sustainability of the model. In the words of one rector: “we would have accepted a model that awards and does not award; but not a model that awards and punishes”. The universities took the issue to the Constitutional Court, which declared the model inapplicable.

The resource allocation model continues to be based on past allocations. Considering that a high proportion of resources is dedicated to salaries and fixed costs, institutions have little left for investments and for new initiatives. Under these conditions, they pressure the government and the legislature.

In terms of autonomy, the norm limits the ability of universities to organize themselves. Law 30/92 defined for all universities a homogeneous form of government based on major decision-making bodies: a supreme university council and an academic council. Moreover, the governmental sector is over-represented in the supreme councils, with the possibility of comprising 30% of its members, presided over by the representative of the national president or the governor of the state, with an obviously negative impact on university autonomy.⁷⁵

The result is that structural problems that affect public universities persist. Neither public policies, governmental regulations, current financing mechanisms, nor the forces of the market appear to offer an appropriate mix of incentives to institutions of Higher Education that could stimulate their development.⁷⁶

Argentina: Comprehensive reform for a blocked system

In 1995, new legislation substantially changed the regulatory framework⁷⁷. Previous to this, universities could not create courses and programs without the authorization of the ministry. The new law enable universities to create courses directly, minimizing ministerial control. But a rigid regimen was established for graduate programs, as a response to their explosive growth in the 1980s. The new offerings of masters programs contributed to improving the finances of universities, but without guaranteeing quality.

The new legislation established the obligation of accreditation of graduate courses, in contrast to Colombia, for example, where it is voluntary. The first experience of assessment of graduate programs was carried out by the Graduate Accreditation Commission (CAP).

The other two pillars of the reform were the creation of the National University Assessment and Accreditation Commission (CONEAU) which, among other activities, assumed the functions of CAP, and the Quality Improvement Fund (FOMECE). The other functions of CONEAU are institutional assessment, approval of the creation of new universities, the assessment of degree programs that affect the health or security of the nation, and supervision of other possible assessment agencies permitted by law.

One of the lines of financing of FOMECE supported the improvement of teacher quality through graduate training scholarships (fewer than 6% of university teachers possessed postgraduate degrees). The gradual introduction of financial incentives related to quality was

75 Gómez, V. M. (2001). *Gobierno y gobernabilidad en las universidades públicas*. Universidad Nacional de Colombia. *Op. Cit.*, pp. 57 y 76.

76 Brunner, J. J. (2002). *The Colombian Higher Education System: Problems and Challenges*. Latin American and Caribbean Region, The World Bank, p. 8

77 The description of assessment systems is based on the study of Del Bello, J.C. (2002) *Desafíos de la Política de la Ecuación Superior en América Latina: reflexiones a partir del Caso Argentino con énfasis sobre la Evaluación para el mejoramiento de la calidad*, pp. 40 -59.

planned, using the experience of CAPES in Brazil.. The “A” class graduate courses of state universities benefited from free grants for each program accredited, while those in categories “C” and “D” received support for improving libraries, laboratories, and technical assistance for academic improvement.

In contrast to CAP, the accreditation of CONEAU is without consequences for financing, since FOMEC was discontinued in 2001 (although it does have consequences for the granting of scholarships on the part of CONACYT). It had an impact on the quality of offerings, either because part of the programs were discontinued, or because the creation of low-quality programs was discouraged.

The following table shows the result of the first round of accreditation of graduate programs (1999 and 2002).

Graduate programs accredited, by type of course up to May, 2006

Type of course	Condition			Total
	Accredited	Not Accredited	In process	
Doctorates	247 (76.2%)	69 (21.3%)	8 (2.5%)	324 (100%)
Masters	577 (65.0%)	254 (28.6%)	57 (6.4%)	888 (100%)
Specializations	791 (65.4%)	336 (27.8%)	82 (6.8%)	1209 (100%)
Total	1615 (66.7%)	659 (27.2%)	147 (6.1%)	2421 (100%)

Source: Marquis, C. y Toribio, D.I. (2006). Chapter on Argentina for CINDA, Educación Superior en Iberoamérica. Informe 2007, p. 27.

In the beginning, assessment in general, and the accreditation of postgraduate courses in particular, were the objects of resistance. The greatest criticisms came from the Universidad de Buenos Aires, which for a year withdrew from the system, and then re-incorporated due to pressures on institutional authorities from some schools. Other objections were related to contradictory resolutions from peers, the fruit of a lack of experience in the beginning, and to an imprecise definition of standards.

Moreover, the law prescribes that degree courses regulated by the state be accredited, but fails to define what courses these are. Thus, the first step for implementation of this demand was to determine what courses are involved. The first to be included were medicine, various branches of engineering and agronomy, due to the fact that there previous work had been done by the respective deans’ associations that made it possible to come to agreement regarding basic curricular content, criteria regarding the extent of practical training, and accreditation standards – all aspects that were then approved by the Universities Council of the Ministry of Education. With these agreements, CONEAU implemented the accreditation processes.⁷⁸

The accreditation of degree courses began with programs in medicine. In contrast to the accreditation of graduate programs, this modality responded to a mixed criteria of assurance/

78 Marquis, C. y D. Toribio (2006). Chapter on Argentina. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 26-27.

improvement. Although the law foresaw accreditations for six years, a three-year period was adopted when peer committees discovered that standards were not fully covered and that the course should make commitments for verifiable improvements, reflected in the contract between CONEAU and the medical course, approved by university authorities.

The results of these accreditation processes of regulated courses can be seen in the following table:

Accreditation of university courses regulated by CONEAU, until April, 2006

Course	Accredited		Not accredited	Total
	For 6 years	For 3 years		
Medicine	2 (8.3%)	20 (83.3%)	2 (8.3%)	24 (100%)
Agronomy	6 (21.4%)	18 (64.3%)	4 (14.3%)	28 (100%)
Engineering	17 (7.0%)	194 (80.2%)	31 (12.8%)	242 (100%)
Total	25 (8.5%)	232 (78.9%)	37 (12.6%)	294 (100%)

Source: Marquis, C. y Toribio, D. (2006). Chapter on Argentina for CINDA, Educación Superior en Iberoamérica. Informe 2007, p. 26.

It should be noted that the law permits CONEAU to recommend the suspension of registration of a non-accredited course (undergraduate or graduate), but this has not yet been done. However, the non-accreditation of a course, particularly of a degree course, is serious for a university. It is recommended that non-accredited degree courses, in order to continued to be offered, should associate themselves with others that are accredited.

In Argentina, as in most of the countries of the region, the political and technical tasks necessary in order to put a university quality assessment and accreditation system in place are arduous⁷⁹. CONEAU gradually began to gain legitimacy as an independent legal entity (which during the most critical moments provided it with a certain “shield”).

The Fund for the Improvement of University Quality (FOMEC) was most active between 1997 and the beginnings of 2001⁸⁰, when the ministry of education suspended most of its project execution activities, and only maintained commitments to grant holders. During the cited period, it allocated 200 million dollars to nearly 500 projects distributed between 36 national universities. This value represented 7% of annual financing for Higher Education. Besides human resources training, FOMEC financed the up-dating of equipment dedicated to teaching and management. In its third round of grants, it incorporated lines of financing for institutional projects. This was done without a clear diagnosis of problems, and in general these kinds of projects had very little impact, with the exception of those dedicated to the computerization of management.

79 Marquis, C. y D. Toribio (2006). Capítulo sobre Argentina. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 28.

80 Oszlak, O. (coord.) (2003). *Evaluación del Programa “Fondo para el Mejoramiento de la Calidad Universitaria (FOMEC)”*. Ministerio de Educación, Ciencia y Tecnología, pp. 74 y subsiguientes.

Another line of activity financed with the World Bank loan was the creation of the University Information System (SIU), made up of 5 modules: economic and financial budgetary management, personnel management, academic management, a university statistical information system, and a management system for information on personnel, budgets, accounting, and finance. The situation foresaw a time of great precariousness in universities. Soon after some initial resistance due to fear of losing control over information, and thus seen as a threat to university autonomy, the systems were widely used. The impact of the program on institutions was very important, although its use was not uniform. It also permitted central education authorities to count on reliable information.

Together with the activities of CONEAU and FOMECA, the initiative of the ministry of finance, education authorities attempted, beginning in 1992 with the budget act, to introduce for the first time block grants. This marked a turning point in the way that the state financed national universities, by leaving aside budgetary distribution by spending object. Moreover, this year also witnessed the beginning of a policy aimed at conceding greater autonomy to universities for managing their property and budgets.⁸¹

Up to this time, the usual allocations system, due to being automatic and incremental, according to the fiscal situation, made it practically impossible for governments to develop more or less coherent Higher Education developmental policies. What was important was independent negotiation that each university carried out with the ministries of education and of finance, and with the legislature itself, which approved the national budget. This modality created an unpropitious context for public institution efficiency, productivity, and performance.

These change policies in financing became more institutionalized between 1992 and 1994 through administrative-financial modifications that were then reflected in the Higher Education Act which, among other things, determined that state managed universities were able to set salary policies, regulate the generation of their own resources, and foster the creation of foundations, societies, and other forms of civil association in order to facilitate relations with their surroundings.

Beginning in 1993, Secretary of State for University Policies (SPU) and the National Inter-University Council designed an objective model for allocation of incremental funds, while maintaining the historical basis of budget allocations up to that time. Although initially this referred to relatively marginal amounts, the model involved a significant change in the procedures used up to that time.

In practice, no substantial modification of the financial regime was achieved because, besides resistance from universities, the economic crisis of 2001 prevented the budget from growing in a continuous manner, and all of these policies pointed to introducing novel mechanisms in the distribution of increases because political possibilities did not exist for cutting the budget of any institution.

In 2002, financing dropped abruptly, with a decrease in real terms of 24 % compared to 1995, when the law was approved. When levels of financing previous to the crisis began to be recovered in 2006, increases were applied to salaries. But it was the SPU that negotiated directly with unions, thus reassuming the management of salary policy.

In the face of the failure of the application of the newly proposed financing model, beginning in 2004 the SPU attempted to apply an alternative modality: contracts extending over several

81 Marquis, C. y D. Toribio (2006). Capítulo sobre Argentina. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 46-47.

years⁸². The initiative was not successful, basically because budgetary increases were absorbed by the demands for higher salaries. If the measure had been applied, the system would have required a strengthening of the regulation capacity of high education officials, as well as greater institutional capacity in order to bring together the interests of different segments of the institution.⁸³

In terms of university government, the 1995 law provided for much autonomy, including organizational autonomy. The only precaution it took was to assure the hegemony of collegial entities, with a participation of at least 50% of their members. It also sought to grant to uni-personal entities of government more executive functions and more normative ones to collegial entities. It granted universities the possibility of electing their authorities through direct elections, with weighted or indirect voting. Thus, it stimulated the participation of sectors external to the university through a new figure inspired by the Social Councils of Spain.

The fact is that universities did not take advantage of the wide margins the law provided for governmental innovation. Most of them, except for nine, continued to use an indirect election system through university assemblies and executive councils of academic units. In the Argentine context, this continued contributing to political party divisions and clientelistic policies. Only the national universities of Quilmes, Lanus, Formosa, La Matanza and San Juan Bosco created a Social Council. Thus we may conclude that the institutions opted for conservative choices in terms of their forms of government⁸⁴.

Brazil: A round-trip voyage

Brazil was a pioneer in the introduction of accreditation systems, with creation of the Higher Level Personnel Training Body (CAPES). Its creation was part of a strategy to strengthen the entire graduate system within a framework of national development plans of the military government of the period. The first of these plans dates from 1974. In spite of appearing during a military regime, the system largely supported a peer mechanism, who in this way found a channel for participation in the development of their disciplines.

The success quickly achieved by CAPES was due to the fact that the system was aided by significant resources. At one time there were 45,000 scholarships for masters and doctoral students for study in the United States and Europe. Thus, CAPES created a national graduate system “outside the university”, which had previously been concentrated above all in São Paulo. In time, the system was consolidated, acquiring great sophistication and offering, on the one hand, to each graduate program as assessment of strengths and weakness, and a reference regarding the state of development achieved compared to a quality standard, and on the other, an assessment of the development of the discipline within the country.⁸⁵

It was necessary to wait until 1997, with the approval of the law on education guidelines, for assessment to be extended to undergraduate courses. The following year witnessed the beginning of the Institutional Assessment Program of Brazilian Universities (PAIUB). Basically, it was a course self-assessment program. In Brazil,⁸⁶ similar to what occurred in Mexico, the principal undergraduate quality assessment projects have been carried out at the level of

82 Marquis, C. y D. Toribio (2006). Chapter on Argentina in: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 50-51..

83 García de Fanelli, A. M. (2006). Los contratos-programa en las universidades: Lecciones de la comparación internacional. *Archivos Analíticos de Políticas Educativas*, pp. 18 and following pages.

84 Del Bello, J. C. y Del Bello, M. J. (2007). *Crisis del autogobierno universitario*. Ponencia presentada en el V Encuentro nacional y II latinoamericano: La universidad como objeto de investigación, pp. 10-11.

85 Entrevista al profesor Héglio Trindade, realizada por el autor y Leal Lobo Silva Filho, R. (2006). A Educação Superior no Brasil. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 30 y 31.

86 Leal Lobo Silva Filho, R. (2006). *A Educação Superior no Brasil*. Op. Cit., pp. 30 -31.

courses, with little done in terms of institutions as a whole, except when the institution needs to request accreditation or authorization to establish a campus beyond its headquarters.

The PAIUB was short-lived, since at the same time, Minister Paulo Renato Souza became personally involved in a national course exam (ENC), better known as the *provão*, or “big test”.

The *provão* consisted of an anonymous test taken by students graduating in specific courses throughout the country. The results were published using a 5 point scale of “A” to “E” which was soon simplified to three points. The experience began with courses in law, administration, and civil engineering, which are the most competitive in terms of entry. In 2003, the test included 400,000 students graduating in 26 disciplinary areas in 6,500 courses throughout the country. The objective was to provide information to the public regarding the quality of courses, as well as generating a process of discussion and consultation among academics regarding the contents and standards of the different courses.

The *provão* involved a very elaborate procedure described by Simon Schwartzman in *The National Assessment of Courses in Brazil* (2007). For Schwartzman, the indirect impact was very important: students began to select the best rated courses; 65% of courses introduced changes in their programs, half of which were attributed directly to the *provão*; academic performance figures, together with a socio-economic survey of those taking the exam made it possible to identify critical factors for student performance, some of which were unexpected. As we have mentioned, the procedure provoked much discussion and negotiations on quality standards and, according to Schwartzman, there are many stories of institutions resorting to external aid in order to improve their courses.

The ministry combined the results of the exam with other criteria such as the percentage of teachers of the same course with doctorates and masters degrees, the percentage of full-time professors, and an assessment of physical installations and of pedagogical projects. With this, institutional rankings were constructed for each of the disciplines which had a great impact on public opinion. The results were often surprising, with courses receiving high rankings that until then had not been considered to be so.

The system faced great criticism and resistance from the academic community. In 2003, the *provão* was replaced by the ENADE, which is done per area on a rotational basis each year with another type of normalization, and with the inclusion of entering students in order to gauge the value added by courses. It is done through sampling. The year 2004 saw the introduction as well of the National Higher Education Assessment System (SINAES). This is made up of three major components: institutional assessment, course assessment, and student performance.⁸⁷

The new system does not require of universities to make clear their plans with quantitative goals; but neither does it commit resources to meet fixed agreed upon goals. If this trend continues, it would mean a certain weakening of the process with the resulting risk faced by all assessments: the accumulation of data that are difficult to interpret.

At no time was there an attempt in Brazil to link the results of assessment processes to financing. In this sense, it is necessary to differentiate between the financing of state and federal universities.⁸⁸

87 Trindade, H. (2007). *Desafios, Institucionalização e Imagem Pública da CONAES (Comissão Nacional de Avaliação da Educação Superior)*. Ministério da Educação & UNESCO.

88 Leal Lobo Silva Filho, R. (2006). *A Educação Superior no Brasil*. *Op.cit.*, p.55.

State systems vary. São Paulo, the strongest system, which includes three of the largest universities in the country (the *Universidade de São Paulo*, the *Universidade de Campinas* and the *Universidade Estadual Paulista*), resources come from a percentage of the tax on the circulation of goods and services (ICMS), which currently represents 9,53% of tax collections. The resources are transferred monthly in 1/12th shares as lump sums, without discrimination of entries, leaving it to universities to decide on internal distribution. Salary levels are established by universities together, through the *Council of Rectors of São Paulo State Universities*.

It is very interesting to consider the origin of this financing model. In 1988, a teacher strike lasting 57 days to demand salary increases paralyzed the universities of the State of São Paulo. Wishing to “become autonomous” from salary struggles, the

state government signed a decree in February of the following year, allocating a percentage of the above-mentioned that universities had distributed among themselves, taking into account the averages of their budgets up to that moment.⁸⁹

In regard to the financing of federal universities, the ministry never put into practice its proposals to grant universities a global multi-year budget. Some 90% of the financing received from the state is assigned to personnel costs, most of whom are public employees, which represents the major limitation for the autonomy of the institutions.

There are two reasons that have hindered up to this time the federal universities – which in Latin America may be considered those that most typify the model of an institution with strong research and graduate activity, and from this perspective the best financed and consolidated in academic terms – to enjoy autonomy. The main reason is the refusal of academic and administrative personnel of universities to change their current labour situation. Most are public employees who are contracted under a single legal regime, with job stability independent of their performance, and with collective negotiation of salaries. The second reason is that currently, 30% of the personnel budget (approximately one billion dollars) corresponds to retired employees, and the institutions do not want to assume this commitment without a transfer of this burden to the public treasury, in order to avoid possible problems of budgetary fluctuations.⁹⁰

In any case, Brazil has the most developed system of foundations for the support of research, and competitive funds. This offers multiple opportunities for additional financing for public universities. In order to manage these funds, universities, for their part, have created their own foundations that grant them flexibility in financial management.

In regard to the form of organization, the management of public universities is quite uniform, with characteristics being essentially collegial in terms of centralized and bureaucratic academic decision-making, and in terms of administrative and financial management.

Rectors are elected by means of a three-person list produced by electoral colleges internal to the universities which must be made up of 70% of teachers. State systems vary, but elections by list are the rule.⁹¹

89 Mazon, L. y Moraes, A. (2007). *A conquista da autonomia financeira*. Available at: <http://pedagoemgreve.blogspot.com/2007/06/conquista-da-autonomia-financeira.html>

90 Schwartzman, S. (2005). O Anteprojeto da Lei Orgânica da Educação Superior: Uma Visão Crítica (with De Moura Castro, C.) and WORLD BANK (2001). *Higher Education in Brazil: Challenges and Options*. A World Bank Country Study. Human Development Department, Latin America and the Caribbean Region, The World Bank Publications, Washington, DC.

91 Leal Lobo Silva Filho, R. (2006). A Educação Superior no Brasil. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 47.

*Costa Rica: Multi-year contracts in a self-regulated system*⁹²

In absolute terms, Costa Rica has the largest investment in Higher Education in Central America. Financing is guaranteed by the constitution in its article 85. The severe economic crisis experienced by the country in the 1980s, and high inflation rates hindered the government from maintaining transfers to universities in real terms. As a response, the National Council of Rectors (CONARE) proposed automatic adjustment mechanisms in order to maintain the Special Fund for Higher State Education (FEES) in real terms.

Within this framework, four financing agreements have been approved that last for five-year periods. Thanks to these negotiations, real growth was attained in the financing of the public institutions. The fourth agreement (2004-2009), currently in effect, changes the inflation index for one based on GDP, with a progression of .90% of GDP in 2005 and 1.05% in 2009.

The five-year financing agreements have shown themselves to be valuable instruments for assuring a clear financial perspective in the mid-term for state universities to be able to order their financing and growth. The past tensions and negotiations with the executive branch, often annual and with measures to apply pressure, for a fail budget, have given way before a mechanism for negotiating every five years that is intense, but which guarantees relative financial security. These agreements are negotiated within the Linkage Commission, a mixed government and CONARE entity made up of the four rectors of the state universities, the public education minister, who presides, and the ministers of finance, planning, and science and technology. The government has complied with all of the commitments of the agreements.

The criterion that has prevailed for the distribution of FEES is to fix it according to the size and characteristics of each institution. While each of the universities defends its own interests for financing its needs, the executive power attempts to rationalize public spending and investment. The percentage that has corresponded to each university remained almost constant during the 1989-2005 period. The Universidad de Costa Rica (UCR) obtains the largest share of the FEES (58%), followed by the Universidad Nacional (UNA) with 23%, the Instituto Tecnológico de Costa Rica (ITCR) with 11%, and the Universidad Estatal a Distancia (UNED) with 7%. The remaining 1% is used to finance the National Council of Rectors (CONARE).

An interesting question to be underlined: when in the first year of the agreement, the indexation linked to the gross domestic product produced an income supplementary to that which had been obtained using formulas linked to inflation, the state universities made the decision that a growing share of these fresh resources, until reaching 50% of the same, should be dedicated to financing inter-university projects. With this decision, they sought to increase cooperation and coordination between state universities in priority activities with the greatest impact on national development.

In 1999, parallel to the signing of the third agreement, the National Higher Education Accreditation System was created, to which, initially, four private universities were invited to participate. This agreement was institutionalized in 2002 through Law 8.256, the National Higher Education Accreditation System Act (SINAES). The body was created as an entity connected to the National Council of Rectors (state universities). Currently, besides the four state universities, nine private universities also take part.

The creation of the National Higher Education Accreditation System is a landmark in the

92 This section is based in Macaya Trejos, G. (2006), Costa Rica: Estudio Nacional, in CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 224-227.

development of Higher Education in Costa Rica. Although the system can be considered to be in its beginnings, the process is irreversible, and its institutionalization through national law gives it an official and permanent character. This law, and the organization of SINAES, gives it independence of action in regard to the group of state universities by which it was created. The National Accreditation Council (CNA) is the executive arm of SINAES and has eight members, named by the state universities, and four representatives from private universities.

SINAES is a pioneer in the Central American region in the areas of accreditation of courses and programs. The process is voluntary, and assessment includes aspects linked to academic personnel, curricula, students, infrastructure, equipment, administration, and the impact and projection of the course. The accreditation of a plan, course, or program lasts for four years. Once this period is passed, review and re-accreditation may be requested. SINAES carries out an annual review of fulfilment of improvement plans of accredited courses.

SINAES listed 35 accredited courses in April, 2006. Of these, 10 are at the baccalaureate level, and 25 are degree courses. Processes have begun formally for accrediting 59 courses.

Recognition of the importance of a culture of quality is progressing slowly. Of a total of 1,263 courses offered, 35 have been accredited. In state universities, the 18 accredited courses represent 3.8% of the total. In private universities, they represent 2.2%. It appears evident that not all courses will soon seek accreditation, but in the medium and long-term it is hoped that the set of permanent courses will operate under a solid system of quality assurance.

The accreditation process of graduate programs is in its beginnings, under SINAES as well, and it is expected that the first accreditations will take place in the near future.

It is important to note the existence of a regional Central American accreditation initiative, the Central American Higher Education Assessment and Accreditation System (SICEVAES), which began in 2005 with an agreement of the Central American Higher University Council, an entity that brings together state universities of Central America. SICEVAES acts as an accreditation system of national accreditation agencies. In parallel, and within the framework of the System of Graduate Degrees and Courses (SICAR) of the Central American Higher University Council (CSUCA), the Central American Agency of Graduate Accreditation (ACAP), was created, the council of which is now in being organized. In recent years, and within SICAR, various courses have been accredited, and are recognized as centres of excellence and training by CSUCA. Currently 33 graduate courses are considered by SICAR to be accredited within Central America.

The case of Costa Rica illustrates an important point: size matters. The creation of a regulatory framework based on a significant degree of institutional autonomy, assessment of results (although as we have seen, this is just beginning), and financial incentives has been favoured largely due to the lack of complexity and the small size of the system. Perhaps this explains why it has been the only case in Latin America of the implementation of a system of multi-year contracts with goals negotiated between the parties.

Mexico: In the labyrinth of modernization

As in all of the other Latin American countries, Mexico went from a rejection of assessment systems, considered to be a violation of the autonomy of public institutions, to the acceptance of an "assessment culture". One of the reasons for this acceptance has been that assessment and accreditation of study programs have become requisites for obtaining additional resources

from the public sector (as well as a measure of attraction of students in the private sector). Due to the enormous proportion of fiscal resources that are pre-committed each year (from between 80% and 90%), additional funds come from resources which are used to improve infrastructure, develop innovation programs, and other activities⁹³

Accreditation processes apply undergraduate and graduate study programs, and not to institutions as a whole. They were established without the need to modify the respective legislation.

The system has not stopped growing in complexity due to the fact that each administration in general has maintained rather than cut already existing programs, although emptying them of resources. For this reason, program accumulation has “stratified” up the point that in the government in office from 2000/2006, education authorities of the sector decided to aggregate them into Comprehensive Institutional Strengthening Programs (PIFI), and in their counterpart in the graduate area, the Comprehensive Program for Strengthening of Graduate Programs (PIFOP).

Number of undergraduate and posgraduate programs accredited
(as of May, 2006)

Level	Undergraduate Programs						Posgraduate Programs	
	2001	2002	2003	2004	2005	2006	Nivel	2006
Level 1	473	587	800	989	1,213	1,337	AN	212
Level 2	578	798	1,052	1,126	1,092	1,058	CNI	32
Level 3	237	481	522	520	504	483	Total	244
Total	1,288	1,866	2,374	2,635	2,809	2,878		

Source: Gil Antón, M. y Pérez García, M. J. (2006). Educación Superior en México, for CINDA, Educación Superior en Iberoamérica. Informe 2007, p.29.

Undergraduate programs as assessed by Inter-institutional Committees for the Assessment of Higher Education (CIEES), entities that grant “level 1” to programs comparable internationally; “level 2” to programs that need to make more effort to improve their standards; and “level 3” to those that require profound changes if they are not to be closed definitively. For graduate programs, AN means “high-level”; and CNI “competitive at the international level”.

With the introduction of such mechanisms, the influence of central education authorities has increased in the institutions. But, what has been the impact of these assessments and accreditations? Opinion is divided, and surely this involves a differentiated impact, depending on the institutions or programs. In some cases, there have been real effects, such as, for example, an increase in the proportion of full-time professors with graduate degrees in public universities (a percentage which is now 27%, and which 12 years ago was null). In many institutions, comprehensive programs have provided a higher degree of rationality to processes, and more clarity in accountability.

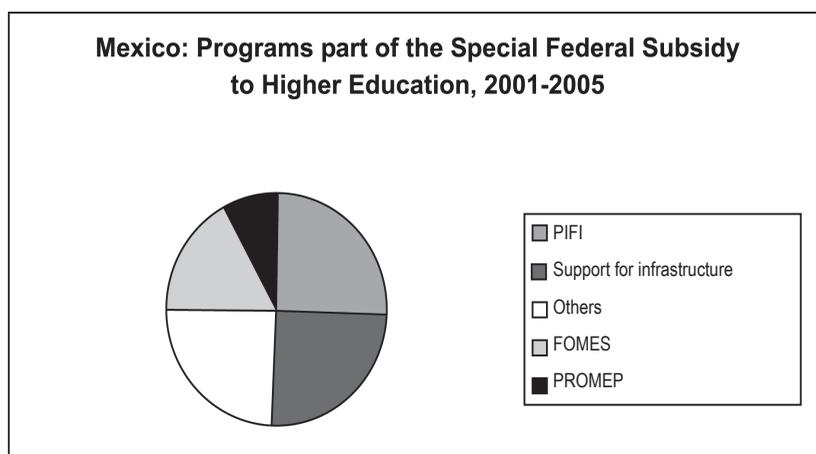
“However, in other cases – or in the majority in the judgement of some analysts – these changes in the area of quality assurance have been merely apparent, stemming from the thirst for additional moneys. Adaptation to formats, they say, is the rule, and if the formats would change, there would be no problem in adjusting to new ones: money is powerful, gentleman, but not sufficient to modify or

93 Gil Antón, M. y M. J. Pérez García. (2006). Educación Superior en México. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 27.

to generate consolidated academic environments”.⁹⁴

Public institutions obtain the majority of their resources from tax funds. In 2005, federal spending for Higher Education represented 0.61% of GDP. The most relevant change is the move from the discretion prevailing during the time previous to the political change (before 2000) toward a process of negotiation and lobbying with the national congress in order to obtain more funds. This change does not imply the direction of such directionality, but rather perhaps the adoption of more complex forms; for the increase of actors in the arena and of their specific interests have hindered the introduction of rational fund distribution schemes. A resource allocation model proposed by the National Association of Universities and Institutions of Higher Education (ANUIES), based on certain indicators, and enjoys the consensus of the affiliated institutions of Higher Education has not been able to be applied.⁹⁵

More than 15 years ago, special, competitive programs were established, the funds of which were included in the category of special subsidies, that were very important for institutions, given the fact that most of the regular budget is already committed to current spending.



Source: Developer by the autor, based on Aspectos financieros del Sistema Universitario de Educación Superior, SEP, SESIC, Abril, 2005.

As the above graph shows, in the 2001/2005 period, the major programs were:

- The Comprehensive Program for Institutional Strengthening (*PIFI*), which since 2001 distributed federal government funds to public universities in order to improve the quality of their educational programs and the services offered, as well as the quality of programs accredited by specialized agencies or of management processes certified by corresponding norms (ISO-9000). The operation of PIFI pursues two general objectives: 1) improvement of the public Higher Education system through the strengthening and development of the institutions of Higher Education of which they are a part; and 2) the attainment of social recognition of institutions of Higher Education as a result of improvements in the performance indicators and of transparency in their operation.
- The Higher Education Modernization Fund (*FOMES*), intended to work jointly with the objectives of the Comprehensive Programs in order to strengthen public universities, fos-

94 Gil Anton, M. y M. J. Pérez García. (2006). Educación Superior en México. *Op. cit.*, p. 29.

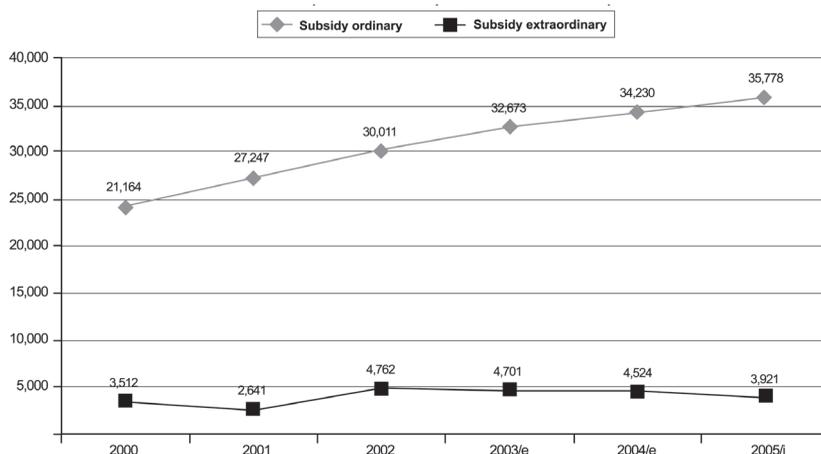
95 Gil Anton, M. y M. J. Pérez García. (2006). Educación Superior en México. *Op. cit.*, p. 25.

tering improvements in the quality of educational programs.

- The Teacher Improvement Program (*PROMEP*), with the objective of attaining (between 1996 and 2006) international standards in both the training and performance of academic course personnel.
- The Public State Universities Investment Fund for such universities with assessed and accredited programs (*FIUPEA*) seeks to support the objectives of Comprehensive Programs for the Strengthening of Public Universities.
- Other funds: Program for the Support of University Development (*PROADU*), Comprehensive Program for Strengthening Graduate Studies (*PIFOP*), Special Support Fund for Public Universities (*FAEUP*).

The following graph shows the relation between regular and special subsidies, with the relation in 2005 being approximately one to nine. Its impact is very important, considering its relation with funds freely available for investments and projects.

Change through time of regular and special subsidies to Higher Education, 2000-2005
(in thousands of pesos at current values)



Source: Gil Anton, M. y M. J. Pérez García. (2006). Educación Superior en México.
In: CINDA. Educación Superior en Iberoamérica. Informe 2007, p. 29.

It is important to remember that the extensive range of sometimes overlapping extra-budgetary competitive funds responds to the fact that successive educational administrations have often opted to create new mechanisms – those that were financed by pre-existing mechanisms, those that as a result were “emptied”. This obeys the same logic as the stratification of at times redundant assessment mechanisms, since the new mechanisms are not part of the preceding ones.

According to the CINDA study:

In the public sector, the predominant trend in the period is to adopt institutional, rather than plebiscitary governments that place themselves against previous policies – in which, for example, the election of a rector or of directors occurs through processes of direct and secret ballot by students, administrative, and academic staff. In recent years, through new general laws, the vast majority of public universities have adopted forms of government in which groups of

directors or collegial groups with a majority of academics, have assumed these functions.⁹⁶

It may be illustrative to contrast these regulatory frameworks with examples from Peru and Venezuela, which have not experienced significant changes in public policies in the last two decades.

Peru: Neither autonomy, nor resources

The Law of the National System of the Accreditation and Certification of Educational Quality was only approved in 2006. For this reason, with the exception of the accreditation of courses in medicine, there are neither organizations nor universities accredited by the national agency.⁹⁷

In Peru, the financing of Higher Education in public universities is among the lowest in the region: 0.55% of GDP in 2002. It is carried out basically through allocations from the public treasury. A part of these resources, very small compared to the total budget, comes from the petroleum levy. The income from the minerals levy enters as transfers made by regional governments to public universities, and by law should be used exclusively for programs of research and development. From 2002 to 2005, of the resources allocated by the state to public universities, this has been held at a constant percentage and is practically limited to current financial spending.

Public universities are controlled by the University Act N° 23733, that establishes a system of government by election between authorities, teachers, and students, determining their organs of government and constitutions. The University and Faculty Councils of public universities have a similar representation of thirds and of members.

This regulatory framework has damaged public universities in Peru, which in order to survive have resorted to the diversification of their incomes, appealing at times to quite unorthodox sources such as offering paid courses for preparation for the university entrance exam. With such a limited level of financing, it is not surprising that the autonomous income of these public institutions in 2006 were 34%, a percentage only surpassed in the region by Chile.

Venezuela: Autonomy without incentives

Venezuela has the highest percentage of GDP dedicated to Higher Education in the region, 2.5%. Together with Brazil, it is the country which historically has allocated to Higher Education highest proportion of education spending, some 42% in 2002, without the country having a graduate system comparable to that of Brazil. As in Brazil, the budgets of institutions of Higher Education in Venezuela include liabilities, and the proportion of the budget directed at retired staff increased from 20% in 1999 to 31% in 2004.⁹⁸

The allocation of contributions from the national executive branch is carried out through the National University Council. Taking as a base a study carried out by the Office of Planning of the University Sector (OPSU), which takes into account for its proposal those coming from different institutions, adopting as distribution criteria indicators such as: professors enrolled in the Program for Fostering Research (PPI), graduate and quantifiable scientific production.

96 CINDA. Educación Superior en Iberoamérica. Informe 2007. *Op.cit.*, p. 272.

97 CONSORCIO DE UNIVERSIDADES : Pontificia Universidad Católica del Perú, Universidad Peruana Cayetano Heredia, Universidad del Pacífico, Universidad de Lima (2006). Informe de Perú. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, pp. 23-25.

98 García Guadilla, C.(2006). Informe de Venezuela. In: CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p.70.

Some 95% of university budgets are distributed according to past budgets of each institution, and only 5% is distributed among those institutions that demonstrate better performance.⁹⁹

At the institutional level, particularly for universities, a similar process is carried out, in which the budget for the coming year among the different dependencies is done based on a proposal of the administrative vice-rector or equivalent body, and final approval is given by the University Council or an equivalent entity, which then sends it to the OPSU for technical review and subsequent delivery to the National Budget Office (ONAPRE).

In the budgetary formulation processes of 2001, 2004, and 2005, OPSU was able to carry out some modifications in order to establish budgetary allocations based, on the one hand, on encouraging and awarding academic and administrative performance, and on the other, reducing inequalities in the distribution of resources. However, for 2002 and 2003 it was not possible to follow the same procedure, due to worsening political conflicts that had a negative impact on the economy of the country. Therefore, it was not possible to grant all of the resources approved for 2002, and the budget approved for 2003 was reduced by 11%. On the other hand, the OPSU program was suspended, with its staff dismissed at the end of 2004.

The current trend is one of stagnation of the financing of established universities, and of a growth in the financing of the sector of the new “Bolivarian” universities, accompanied by the centralization of financial resources through the new Ministry of Higher Education as the direct executor of public policies.

In regard to quality assurance systems, after initial attempts, by a resolution of the CNU, the Assessment and Accreditation System (SEA) was created in 2001. The current state of this initiative is unknown.

The public policies of this latest period has been directed basically at increasing access through the creation of institutions parallel to the conventional ones, without considerations for assessment for neither established institutions nor for the new ones created within the municipalisation scheme.¹⁰⁰

The governing of universities (public and private, autonomous and experimental) is controlled fundamentally by the Law of Universities which has been in effect since 1958 and modified in 1970. This law establishes that the supreme authority of each university (public or private) is the University Council, which is composed of a rector (who presides), vice-rectors (academic and administrative), a secretary, deans of faculties, five representatives of professors, three of students, one representative of graduated students, and a delegate of the ministry of education. A Venezuelan particularity is that, in autonomous universities, it is common that rectors and vice-rectors are elected from different political sectors, or “slates”, a fact that requires a not always easy cohabitation.

The national experimental universities were created in order to experiment with new forms of government, organization, and functioning. In contrast to the autonomous universities, it is the institutions themselves that propose short-lists of candidates to the executive branch through an internal voting process in which professors and students participate. Almost all of the experimental universities are organized by departments and programs, contrary to the traditional structure of faculties and schools of the autonomous institutions, and they generally have a supreme advisory council, as well as an executive council composed of representatives of

⁹⁹ *Ibid.*, p.67.

¹⁰⁰ CINDA. *Educación Superior en Iberoamérica*. Informe 2007, p. 314.

sectors outside the university. This body has the function of formulating development policies, general supervision, and assessment of the institution.

How much water under which bridges?

A significant part of the literature on Higher Education policies in Latin America speaks of a confrontation between directly opposed points of view: markets vs. the public good, enterprise vs. academic values, etc. Thus, while some texts consider some isolated examples as the prelude to an irreversible trends, other denounce what they fear may happen. Within the limits of this work, this section sought to describe the concrete forms in which important innovations in education policy are produced, and in what contexts they occur. There is a complex and not univocal link between “contextual” planning and the object of this study, the governing of institutions.

What may we conclude from this brief overview?

The gradual and irreversible establishment of assessment and accreditation

Assessment and accreditation have come to stay. In principle, these mechanisms have had some direct or indirect impact on institutions. For example:

- Direct or potential sanctions from assessment agents (discontinuance of a program, or the demand for corrective measures).
- Indirect market sanctions caused by the publication of negative results of an assessment.
- Financial stimuli for improvement of aspects identified as critical.
- Changes related to the necessary improvement of indicators compared to those of other similar institutions.
- Access to competitive funds that require as a condition that an assessment or accreditation process has been completed.

Not without resistance institutions have been developing an assessment and accreditation culture, but they are not eager to accept the linkage of assessment results with some form of financing.

The still-incipient development of quasi-market mechanisms

Attempts to maintain a distance from historical and inertial financing models has given few concrete results. Whether due to fear of government commitments, of economic crises, or simply in order to defend “acquired rights”, it has not been possible to establish more sophisticated financial formulas based, for example, on output indicators (e.g., the number of graduates) or throughput indicators (e.g., exams taken). In the face of this resistance of the institutions, governments have chosen to resort to quasi-market mechanisms, the most disseminated of which are competitive funds. However, these have shown themselves to be effective only when they are able to mobilize a significant quantity of resources in relation to the funds freely available to universities, and when they have been able to be maintained through time, beyond political changes and macroeconomic circumstances.

Regulatory frameworks have not sufficiently stimulated organizational innovation

This can be verified in the election procedures of uni-personal organizations, in the composition of collegial entities, and in the creation of a group of administrative personnel with responsible positions. Even in the cases in which norms foster the incorporation of outsiders within government entities, the difficulties in institutionalizing their participation in decision processes are striking. This is an aspect in which any change only can be induced, since any imposition of the norm would be contrary to organizational autonomy.

The new policies demand greater planning and managerial capacity from educational authorities ...

The described reforms represent a challenge for institutions. But they are also, and no less so, for educational institutions, which must develop a greater capacity for dialogue with institutional leaders, for negotiating goals, implementing mechanisms, and monitoring results; all aptitudes that are very distant from bureaucratic administration. “Control at a distance” does not imply for educational authorities to renounce their responsibilities. However, it does require transparent rules of the game that are accepted by all.

... and better information systems

Some governments have developed more reliable and complete information systems, at times using them as a source of public information. This is the case of the data bases of the Ministry of Education of Chile (MINEDUC), of the SIU information system, and of the National Higher Education Information System (SNIES) in Colombia.

Control, or induce?

It is evident that many education policy reforms are caused by a distrust of the governmental capacity of the institutions. This distrust can lead to inducing a different behaviour on their part. Mexican colleagues may seem to be particularly sensitive to the limits of governmental intervention. When education authorities reveal their “trunk of indicators”, it is possible that monitoring at a distance becomes, in fact, a one-on-one battle. “Want more money? ... you fill out the form, and the time period is up. The indispensable need for accountability comes to mean giving oneself in to institutions in the face of the accounts that the forms demand because academics are divided between the “indicatorphiles and “indicatorphobes”.¹⁰¹

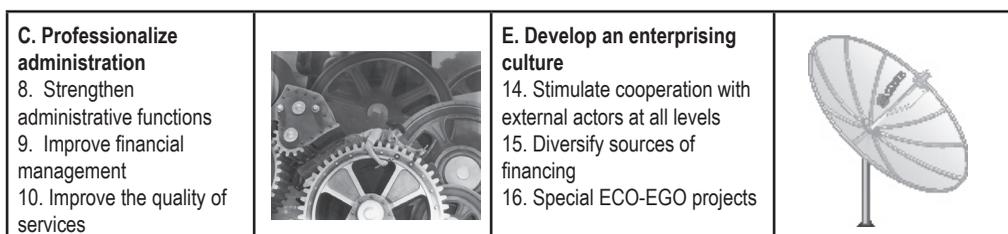
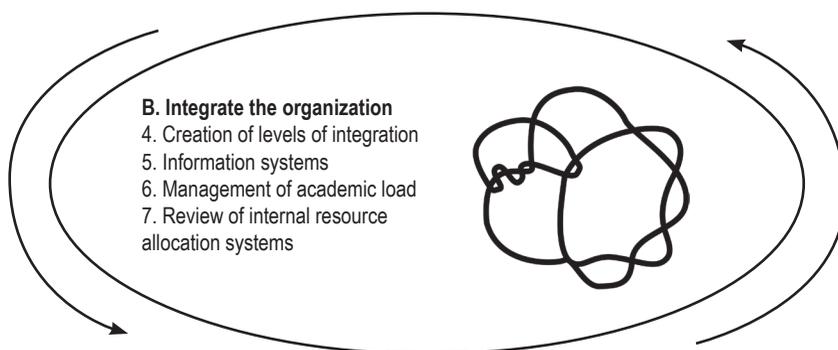
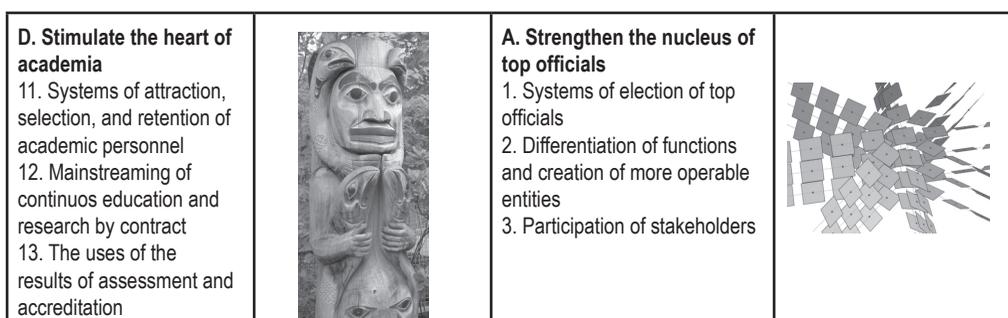
Distrust between academics and students is the unstated premise that runs through the modernizing paradigm. This is not what we need in order to improve. I am not appealing to a supposed innate goodness of teachers and students against the supposed evil of functionaries: academia can be as, or more, miserable in its internal practices as any other social sector. However, academia can also contain the potential for innovation, exploration, and the opening new paths.¹⁰²

101 Acosta Silva, A. (2006). *Señales cruzadas: una interpretación sobre las políticas de formación de cuerpos académicos en México*, pp. 81-22. Gil Anton, M. (2006) en *Revista de la educación superior*, Vol. 35, No. 139, p. 93-96. Available at: <http://dialnet.unirioja.es/servlet/articulo?codigo=2219242>,

102 Kent Serna, R. (2007). *La educación superior: Falacias y problemas*. Op. Cit., p. 5

4. Pathways to innovation: a road map

1. We have defined governability as the ability to articulate a shared institutional vision, and to put it into practice (which is the same as the rationality of ends and the rationality of means in Max Weber).
2. The hypothesis is that, although governments by themselves have only by partially able to implement new public policies, key innovations are taking place in the government of institutions.
3. Identifying innovations assumes analyzing in detail certain processes in institutions in terms of governability. In the words of George Keller, “Forget the Grand Plan... concentrate on details”. This section is a conceptual map, with two purposes:
 - To motivate institutional leaders in the types of processes that should be improved or prompted in their universities.
 - To guide empirical research on the processes of governability.
4. In what follows, we identify 16 processes with an impact on governability, in accordance with observations in well-governed universities. They are not isolated actions. They tend to be related to each other in order to produce a sequence



of changes. We take from Burton Clark the concept of “organizational pathways”. “Pathways” are not only the road to be followed: they are also neurological or metabolic processes. Neurological pathways are networks of interconnected neurons, through which nerve impulses travel. Metabolic processes refer to a sequence of reactions catalyzed by enzymes, through which one substance is converted to another. The metaphor is useful in order to intuit and understand the process that takes place in organizations. Each of the processes described below can stimulate the transmission of a “nervous impulse”, or “the transformation of one substance into another” Impulse and substance can be useful for the life of an organization.

5. The processes are presented grouped into five categories that are largely based on the categories developed by Burton Clark, in “*Creating Entrepreneurial Universities*” (1998) with slight modifications. The five proposed categories are:
 - A. Strengthen the steering core.
 - B. Integrate the organization.
 - C. Professionalize administration.
 - D. Stimulate the academic heartland .
 - E. Develop an entrepreneurial culture.

A. *Strengthen the steering core*

1. **Systems for nomination of leadership** How do they influence the forming of leadership? “The *sine qua non* of innovation is controversy”. The appearance and election of a leader is one of the most important aspects of university life, and is an indicator of its institutional quality. The rector is the major articulator between institutional interests and the power of ministries. Combination between election and designations. Strong leadership and the “institutional fatigue” syndrome”.
2. **Creation of more operative collegial organs of government.** Differentiation and balance between the functions of strategic orientation, execution, and administration in government entities in order to avoid an excess of administration and a deficit of management.
3. **The participation of stakeholders in collegial bodies.** Formal and informal mechanisms to foster their participation in the development of strategies and the offering of academic services. Internalization of external pressures.

B. *Integrate the organization*

4. **Creation of arenas for integration** in order to achieve coherence among institutional objectives at different levels of the organization (\neq cohesion of values): matrix-like academic structures, non-statutory entities in order to compensate for the low effectiveness of collegial entities. (*Joint Committees for Great Decisions*)¹⁰³, other mechanisms in order to compensate for the habitual differentiation of academic groups.
5. **Information counts!** The impact of programs to improve the quality of information, of

103 Six criteria for analyzing JCGDs (Joint Committees for Great Decisions):

- Composition: high officials, influential academics, administrative employees?
- Who presides?
- Frequency of meetings
- Principal tasks
- Public or secret minutes
- What happened with their principal decisions?

assessment and accreditation programs, and of competitive funds on information available for decision-making (\neq favourable data and news / mountains of information). Information on graduates, student drop-out, costs, etc. Characteristics of useful information: selectivity, timely, reliable. The role of informal networks.

6. **Management of academic loads.** Norms for determining academic loads and their distribution, consolidation by academic unit, margins of strategic development, managerial control.
7. **Review of internal resource allocation mechanisms:** transparent, and with follow-up indicators. Link academic and financial management: budget preparation and approval processes. Models for resource allocation within the university. Rules of the game for the establishment of projects or priority investments. Academic units as cost centres. The control of management: follow-up mechanisms.

C. Professionalize administration

8. **Strengthen administrative functions:** experiences of the emergence of careers of university administrator: general secretaries, managers (vs. the spoils system as an expression of influence of politization and clientelism in electoral processes).
9. **Improve financial management:**
 - continuously monitor income flows;
 - develop pricing policies;
 - share incomes obtained and the surplus generated between the university at the central level and departments;
 - maintain the confidence of academics in the process of obtaining resources in the market, avoiding that this activity be seen as a stratagem in conflict with academic values or one that harms the central functions of the university;
 - develop skills and professionalize the management of these commercial processes at both the central level and in departments and faculties.¹⁰⁴
10. **Improving the quality of services:** Habitual practices. Process rationalization.

D. Stimulate the academic heartland

11. **Systems for the attraction, selection, and retention of academic personnel:** the role of graduate courses and of research, incentives; promotion mechanisms; planning for renovation of academic staff.
12. **Mainstreaming of continuing education and contract research for the innovation of central missions of the institution.** Riding the current. Institutional consequences of the capture of resources and the sale of services. (*Extended peripheries* -Burton Clark- vs. privatization of areas) Stimuli for academic entrepreneurship.
13. **Utilization of the results of assessment and accreditation.** The uses of adversity.

E. Develop an entrepreneurial culture

14. **Stimulate cooperation with external actors at all levels.**
15. **Diversification of sources of financing:** capture of resources for strategic projects, de-

¹⁰⁴ Shattock, M. (2003). *Managing Successful Universities* Society for Research into Higher Education.

velopment of a portfolio of projects for capturing public and private resources, virtuous circles of financing: obtaining results – institutional credibility – new resources, the role of the rector.

16. **Special projects. ECO (*outward looking*) – EGO (construction of an identity):** the tension between institutional identity and opening up to its surroundings.

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Chapter 10

CHALLENGES AND DILEMMAS OF THE FINANCING OF HIGHER EDUCATION IN LATIN AMERICA AND THE CARIBBEAN

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1. The economic situation of Latin America and the Caribbean

During the last five years, Latin America has witnessed exceptional moments in its economies, at least compared to the last three decades. As a result of increases in prices of its exports, and thanks to a significant increase in internal demand, especially due to consumption, the region has witnessed growth rates of its economies far above the historical averages seen since the 1960s. In effect, annual average growth rates from the 1960s to the 1990s were not above 2%; in the 1990s they were slightly above 1.5% annually. In contrast, from 2003-2007, average growth has been above 4.5% per year, reaching 5.6% in the latter year. This represents significant progress compared to the modest 2.2% average growth from 1980 to 2002, a rate that resulted in very little growth of per capita income.

The economic boom taking place in Latin America resulted in an increase of nearly 3% of annual per capita income from 2003 to 2007, while at the same time open unemployment has decreased and real salaries have grown. According to the Economic Commission for Latin America, unemployment fell to an 8% average in the region in 2007, placing it at a level near the long-term structural rate. On the other hand, balance of payment current accounts witnessed a surplus during the last five years, together with sustained improvement in terms of trade, and a progressive decrease in high levels of foreign debt. In addition, between 2003 and 2006, fiscal deficits turned around notably, and only in 2007 did this deficit again make its presence felt, apparently due to the social spending that governments have carried out. Moreover, inflation rates in the region have decreased ostensibly, in open contrast to a regional history of lack of adjustments in prices and hyper-inflation.

The conclusions arising from aggregate economic analysis are clearly positive for Latin America. However, not all the news is good. For example, although it is true that poverty has been reduced for the population of the region, this has not occurred at desirable rates, in spite of governments having made special efforts to increase subsidies directed at the poor. Moreover, income distribution remains a problem that presents great political problems for a majority of countries, together with a low level of international competitiveness, scant productive innovation, and rigid labour markets. In addition, although unemployment has decreased, under-employment and a significant increase in informal employment remain as problems to be treated in order to obtain better distributive results and greater efficiency.

From 2003 to 2007, per capita income expanded, as we have noted, by almost 2.5% per year – representing an accumulation of 13% for the period, a figure that with the low growth rates of 1980-2000, for example, would have only been possible to attain in two decades. In spite of the persistence of severe problems of income distribution, including in countries in higher effective economies such as Chile, this significant growth of per capita income produced a growing demand for educational services, especially for Higher Education, since this is seen as a powerful vehicle for social mobility.

Table 1
Per capita income (thousands US\$, PPP)
Latin American and Caribbean countries

	2004	2007
ARGENTINA	13,000	17,559
BARBADOS	16,835	20,532
BOLIVIA	2,639	3,062
BRAZIL	9,113	10,637
CHILE	11,212	13,745
COLOMBIA	7,154	8,891
COSTA RICA	10,072	12,683
ECUADOR	4,285	5,021
DOMINICAN REP.	7,488	10,241
EL SALVADOR	5,072	5,885
GUATEMALA	4,009	4,547
HONDURAS	2,860	3,388
JAMAICA	4,097	4,654
MEXICO	10,111	11,880
NICARAGUA	3,544	4,055
PANAMA	7,236	9,395
PARAGUAY	4,847	5,638
PERU	5,782	7,410
TRIN. & TOBAGO	13,668	18,975
URUGUAY	9,279	12,917
VENEZUELA	6,004	8,125

Source: International Monetary Fund. Economic Outlook Data Base. Oct 2007.

As can be seen (Table 1) Latin American countries have experienced a notable expansion of their per capita incomes measured in purchasing power parity (PPP) dollars. According to data from the table, the average growth of these countries in their per capita incomes (PPP) was 23.7% from 2004 to 2007, which means an annual increase of approximately 7.3%. These growth rates are exceptional compared with the recent history of the region, although certainly they are associated not only with the economic growth experienced by these countries, but also with the financial phenomena behind changes in the value of the dollar. In any case, there was a significant increase in purchasing power in these countries, which leads to equally significant pressures in terms of the demand for education. Certainly as well, greater growth has made possible a greater availability of fiscal resources, and creates the possibility of greater investments in education as a strategic development option.

2. The demand for Higher Education in Latin America and the Caribbean

The demand for Higher Education in Latin America and the Caribbean is being actively influenced by two powerful factors. On the one hand, as has been noted, due to the expansion of per capita income that has accelerated in the region during the last five years; on the other, due to the need that these countries experience for producing more highly-qualified people, together with more scientific and technical knowledge in order to thus make their current

economic achievements more sustainable. Both factors combined have led to a growing coverage of Higher Education, especially for universities for those 18 to 24 year-old. In effect, from 1985 to 2005, the gross enrolment rate for tertiary education (UNESCO Institute for Statistics –UIS) grew from 17% to more than 31% as an average for the region. Various countries, such as Argentina, Chile, Costa Rica, Cuba, Panama, Uruguay, and Venezuela (Table 2) have achieved Higher Education coverage rates of above 40% of their 18 to 24 year-old populations, and are thus very near the level of OECD countries. The figures in Table 2 also show that all of the Latin American countries under analysis have increased the coverage of tertiary education during the past 20 years, a trend that became much more marked from the middle of the 1990s. This is largely due to increases in national incomes and to the greater opportunities available through expansions of the systems and the needs for profession training demanded by societies.

The increase in Higher Education enrolments in Latin America, especially from the 1990s, is characterized by four marked trends¹:

- (1) the increase in enrolments took place in both public and private institutions, although the latter showed a relatively greater growth;
- (2) accelerated access to Higher Education has represented a great financing effort by families, since during the 1990s, GDP per capita was practically frozen;
- (3) the greater access to Higher Education in Latin America has been accompanied by less selectivity in admission processes;
- (4) to the extent that prior academic weaknesses prevail in the training of students at secondary levels, the massification of Higher Education has generated a tertiary level student body with greater academic problems as well as coming from lower income groups, resulting in a greater heterogeneity in the quality of institutions.

As a result of these trends, there is a need to re-define public policies and financing instruments in order to thus face the new dilemmas and challenges presented by this important change in the demand for Higher Education.

Table 2
Gross enrolment in Higher Education
(percentages)

	1985	2005
ARGENTINA	35.7	65.0
BARBADOS	27.6	38.2
BOLIVIA	19.2	40.5
BRAZIL	11.3	23.8
CHILE	15.6	47.8
COLOMBIA	10.9	29.3
COSTA RICA	22.0	25.3
CUBA	20.1	61.5
DOMINICAN REP.	18.0	32.9

1 IESALC-UNESCO: Informe sobre la Educación Superior en América Latina y el Caribe 2000-2005. La metamorfosis de la educación superior. Caracas, 2006. Available at: <http://www.IESALC.unesco.org/ve/publicaciones/Boletin-InformeES.htm>

EL SALVADOR	16.9	19.0
GUATEMALA	8.6	9.6
HONDURAS	8.8	16.4
JAMAICA	4.4	19.0
MEXICO	15.9	24.0
NICARAGUA	8.8	17.9
PANAMA	24.5	43.9
PARAGUAY	9.1	24.5
PERU	22.4	33.5
TRIN. & TOBAGO	5.3	12.1
URUGUAY	30.7	40.5
VENEZUELA	25.3	41.2
Latin America	17.2	31.7

Source: Unesco Institute of Statistics

At the same time, the growth of Latin American Higher Education systems has placed considerable pressure on its financing mechanisms, which has led to their diversification; notably in regard to the tradition existing in the region in terms of basically free public universities financed wholly through state funding. The pressure from international organizations in terms of the exercise of greater fiscal and tributary discipline, as well as needs regarding the satisfaction of a growing demand for university and advanced studies, have led to the creation of an emerging private sector offering university alternatives, and of other forms of Higher Education. These pressures have also brought with them the need for greater efficiency of public institutions, as well as greater possibilities on their part to obtain financing through the private management of their resources².

3. Financing mechanisms of Higher Education in Latin America and the Caribbean

There are four prevalent modalities for the financing of Higher Education in Latin America and the Caribbean. These four modalities apply indiscriminately and in different combinations in the countries of the region, thus reflecting the diversity one observes in the region in terms of financing policies and outcomes.

- (1) Direct public financing, provided to eligible institutions through the regular state budget, usually through legislative approval and through the respective ministry responsible for financial matters. The receiving institutions are state universities; that is, formal dependencies of state authority, with academics contracted through the public service, and with the application of management norms being those that are applicable to the public sector in general. Exceptions to this are the cases of Chile and Nicaragua, where for historical reasons, private institutions also receive this kind of public financing. In the Dominican Republic, institutions of Higher Education can negotiate the allocation of public resources.

² Cáceres, Carlos. "Informe para el estudio de IESALC: Los países del Cono Sur". Santiago-Chile, febrero 2008.

In general, the granting of these resources is not linked to specific goals or purposes of the receiving institutions, and are renewed annually using a political criterion usually based on negotiation with the institutions as well as automatic adjustments based on the purchasing power of the currency. Countries such as Costa Rica or Nicaragua, for example, have arrived at a norm of indexation of public contributions, while political negotiation is a fundamental instrument in the cases of Argentina, Brazil, and Mexico.

Some countries have attempted to make this fixed-base form of providing resources to Higher Education more flexible through budgetary review based on academic results. This is the case of Chile, for example, where 5% of the total value allocated is revised annually based on academic production. However, this option has not been successful in the sense that the powerful political influence of Higher Education tends to predominate, causing the maintenance of a fixed allocation system with a ceiling sustained in real terms. On the other hand, academic production indexes (publications indexed, student repetition or drop-out rates, graduation, academic training, and teacher efficiency rates, etc.) are not generally available and limit the possibility of allocating resources in terms of results.

Modalities of public resource transfer to Higher Education vary between countries, but a system predominates that is based on the past distribution of public contributions or the negotiation of financing for institutional development programs. Results-based Financing using performance indicators has begun to be implemented through competitive funds in some countries, principally in Argentina and Chile. But it is not a predominant modality in terms of the volumes of resources transferred. In Bolivia, a significant part of public financing for institutions of Higher Education is directly related to income received from the exploitation of natural resources. These funds are assigned principally to strengthen infrastructure, equipment, and for quality improvement programs. In Honduras, the state transfers a value equivalent to 6% of its budget to the state university with the largest student population (the UNAH), while in Costa Rica, the State Higher Education Financing Fund (FEES) is distributed between four state universities under the condition that they generate income with their own resources equivalent to at least 10% of the state contribution. In Uruguay, public resources are allocated according to five-year budgetary legislation and annual accountability. Although the Universidad de la República, in this latter case, formulates its budget project based on management by objectives that responds to a strategic plan, the allocation of resources tends to follow an inertial trend determined by operational expenses, with an emphasis on the financing of salaries. In Ecuador, recently, in a move that is contrary to what has occurred generally in the region, private universities have been eliminated from the possibility of participating in the contributions of 25% of the income tax. In Peru, on the other hand, public resources are allocated directly to universities for their free availability in development plans. However, at the beginning of 2000, various conditions were established for the use of funds, thus restricting the autonomy of their institutional management. Part of these legal dispositions condition the use of resources generated by universities themselves.

- (2) Policy objective-based public financing. This treats resources that are usually not recurrent, included in special funds of a transitory nature or for attaining specific objectives or achievements of universities or institutions of Higher Education that these funds help to finance. Many objectives or goals established for this purpose have to do with teaching,

especially taking into account numbers and quality of students (the case of the Indirect Fiscal Contribution in Chile), or with achievements in the area of research (funds in the case of Venezuela), or for graduate training (the CAPES model of Brazil). Less progress has been made in terms of programs that include negotiations with the state and competition between institutions in order to obtain funds based on management commitments. The Chilean experience regarding MECESUP (improvement of quality and equity in Higher Education) funds fostered this purpose, but the results in terms of sustainable achievements are still to be seen. In Argentina, the case of FOMECA (implemented competitive funds) is alike, with resources aimed at real investment programs. The Mexican FOMES program is similar.

It is important to mention the case of Brazil in this regard. The Ministry of Education established a program called PROUNI in 2005 with the purpose of optimizing the use of enrolment places offered by private universities. In effect, the excess of unused enrolment places, which tends to diminish efficiency in the provision of private education, leads to an offer by the public sector to acquire them at a tuition cost below that originally charged. In this negotiation, the incentive for the universities is to fill their places and foster a greater absorption of students in the Higher Education system, giving preference for grants to students with the greatest financial need. In the short term, the government seeks to have some 400,000 students participating in this system, a figure that in 2006 was 250,000 students.

- (3) Private financing occurs through the payment of tuition on the part of families, by companies that finance research and graduate programs, or through private individuals or companies that make donations to institutions of Higher Education. The charging of student tuition is not only a practice carried out by multiple new universities that have emerged throughout the region. Charging for the cost of education has also been transformed into a practice that increasingly occurs in state universities as well – a situation that in Chile is notorious. Tuition charges and the ways in which this takes place is a controversial political theme in most countries, since it tends to reserve Higher Education for an elite, and has a negative long-term impact on the distribution of income. However, it is clear that without a greater financial commitment from states, further expansion of Higher Education can only be attained, once existing residual resources of the institutions have been used, only through a reduction of quality. This has placed in relief the emergence of accreditation institutions and procedures aimed being used as an instrument of control, or at least of information, regarding private expansion and the progressive privatization of the state sector.

The increased private financing of Higher Education in Latin America is illustrated by the following figures: although in the case of the United States and the Republic of Korea, in 2004, private spending on tertiary education (as a percentage of GDP) reached 2% and 1.9%, respectively, in Chile, Colombia, and Jamaica the figures were 1.8%, 1.4%, and 1.3%, respectively. On the other extreme (of greater dependence on the state) in Australia, Japan, and New Zealand, private participation in the financing of Higher Education was 0.8% for the first two countries, and 0.6% for the third. In Finland and Sweden, the figures are 0.1% and 0.2%, respectively. Similarly, the figures for Argentina and Guyana are 0.2% and 0.5%, while in Mexico, Peru, and Trinidad and Tobago, private spending on Higher Education represents 0.4% of GDP. In the case of Chile, and in open contrast

to the rest of the region, the state universities receive an average funding from the state (through different channels, including competitive funds) of 29.3%. That is, 70.1% of their funds come from private mechanisms that include tuition payments³.

In regard to the existence of private donations as a financing mechanism for Higher Education, it should be noted that the regulatory structure for doing so is extremely fragile in most Latin American countries. There is also a lack of a culture in this regard for encouraging private parties to transfer resources to public or private universities, as well as more expeditious systems of tax deductions. The idea also prevails that the state has the “obligation” to provide universities with all they need for their development; an understanding that has prevailed within the institutions themselves, among the general public, and in the private sector itself. Moreover, there tends to prevail a culture of “distrust” toward the public sector and academia in general terms, which also affects the possibility of establishing private company-university strategic alliances for the financing and execution of projects with productive applications. From the university perspective, on the other hand, there exists an anti-capitalist sentiment that sees the desire for profit as a negative influence on scientific and technological research.

- (4) A mixed model, that combines state financing, both fixed and by objectives and goals, with private financing based on the direct payment from students or through other mechanisms of private financing. The Chilean case is one of these, in which the state university sector itself collects monthly charges, while in Mexico a system is growing that allocates public resources by objectives and goals. In Argentina, Bolivia, Colombia, Costa Rica, Peru and the Dominican Republic, countries for which information exists, between 10% (Costa Rica) and 38% (Peru) of the incomes of institutions of Higher Education come from their own resources generated by private activities. As we have noted, in the case of state universities in Chile, this proportion is more than 70%, while in Nicaragua, it is near 2% of the incomes of the institutions. The Dominican Republic has a model characterized by a fall in the percentage of public spending for Higher Education that was 0.5% of GDP in 1998, and 0.27% in 2002, thus inducing greater financing from the market. Even Cuba has established a system of stimuli to the areas that capture resources as an impulse in the entire university structure⁴, and in Argentina, the percentage of institutional resources in the total budgets of universities has varied greatly, from 7.3% (2001), 17.4% (2002), to 11,8% (2005).

4. Recuperation of costs and distributive effects

Tuition charges have progressively become a reality in institutions of Higher Education in Latin America. The growth of the private sector has occurred based on charging students and their families, with a management based fundamentally on financial criteria and aimed at generating a competency based on good infrastructure and facilities, as well as teachers who are recognized in their respective areas and who are part-time. Research programs and activities

3 CINDA (2007). *Educación Superior en Iberoamérica*. Informe 2007. Santiago de Chile, Junio 2007. In Chile, between 2000 and 2006 the 25 universities with public financing (private and state) increased their enrolments from 201,123 students in 2001 to 262,159 students in 2006. As a result, their participation in the structure of institutions of Higher Education decreased from 46.2% in 2000 to 39.4% in 2006. This is a sharp decrease compared to 1981 when 100% of enrolments in Higher Education were in the same universities. Private institutions have increased their participation in total student enrolments of Higher Education students from 23.3% in 2001 to 32.4% in 2006. Also in: Cáceres, C. (2008), *op.cit.*

4 Estrada, Marco R. y Efraín Medina: “*Financiamiento de la Educación Superior en Centroamérica y el Caribe*”, study for IESALC, Guatemala, January, 2008.

are not yet a generalized phenomenon in the emerging private sector which, as in the case of Chile, has begun to absorb a majority share of university students. Investments in advertising and in infrastructure have acquired significant dimensions in various countries in the region, leading to the private sector covering a progressively greater portion of university students.

Public or state universities, on the other hand, face serious structural financial problems, especially because their resources embrace teaching, research, and extension, including the production of public goods that do not necessarily have an explicit financial counterpart. Moreover, these universities need to obey a number of public regulations in terms of personnel management and management *per se*, which often raises their costs significantly. Financial restrictions oblige them to cover at least part of their costs based on student fees, but this has led to profound and sustained conflicts, as in the case of Mexico. In Chile, at the other extreme, state universities charge fees only slightly below those of the private sector, with the result that there are few basic differences and in terms of the objectives of the activity. In some countries, there has been a progressive agreement at the political level in the sense that Higher Education not continue to be free of charge, based on the argument that it is not possible to finance the sustained increase in coverage and the notorious upward skewing involved in the participation of segments from high socio-economic levels.

In the face of this scenario, in some countries the idea prevails of eliminating supply subsidies (financing delivered directly to institutions of Higher Education) and emphasizing demand subsidies (leaving the money in the hands of students for them to thus freely choose their study options). Mechanisms based on scholarships financed by fiscal resources have begun to be emphasized in various countries⁵, as well as credit mechanisms such as those used in Chile, which involve preferential rates, payment upon graduation, and long-term conditions for recuperating costs, including in some cases state guarantees for private providers. The idea of strengthening a mixed model of financing has made some progress, including adopting some innovative models as in the case of Uruguay, where a tax has been created paid by graduates in order to finance students with economic needs.

The fundamental problems that this increasingly private financing model of state or public Higher Education leaves pending are two. First, complex, or research universities need resources for this task, which is not resolved with state allocations to students for them to pay their fees, since these are resources dedicated to teaching. Second, the production of public goods that one expects from state universities and from others that receive state financing to this end, is negatively affected by financing focused on activities of undergraduate teaching. Within these activities is the dissemination of art, research on long-range national themes, etc. It is thought that the existence of competitive funds to finance research will meet the first problem, while the creation of performance agreements with institutions so that they may involve themselves in national and public themes may meet the second. These also involve the production of positive social externalities which, in the logic of economic analysis, should be financed appropriately through fiscal policy. The production of public goods and externalities involves the necessity of designing a system of public financing with greater amounts that correspond to undergraduate teaching and based on clear rules of accountability.

The design of credit systems for Higher Education studies has attracted growing inter-

5 As we have noted, the case of PROUNI in Brazil is in effect a scholarship with public financing (tax reduction) for students coming from the private sector.

est in different countries, given the expansion of the system and the virtual inability of the public sector to adequately finance this growth. In Brazil, for example, the mechanism of student financing is the FIES, which replaced the former CREDUC which became unviable due to the need for high subsidies. The FIES program introduces new requirements in terms of guarantees, a reduction of financing to 50% of the value of monthly payments, as well as grace periods before beginning repayments⁶. However, the case of Chile is that which has the longest history in terms of the design and implementation of these financing mechanism. State credit which began to be implemented at the end of the 1980s became progressively insufficient as a financing fund, leading to permanent student protests and a growing need of the universities themselves who had to complement the available fund with their own resources. The size of the fund, although restricted to only state universities and private ones with direct public financing, was reduced in time due to the irrecoverability of the loans outstanding. The process contained grace periods and low interest rates for credits in order to confront a growing demand due to the expansion of enrolments in the traditional universities eligible for this kind of loan. Finally, in order to face the problems generated, a system of private credit with state guarantees was designed, applicable to all accredited institutions (not only those with direct public financing) that has made it possible to increase financing margins and to improve conditions for recuperating the credit portfolio. However, in spite of the efforts made, a mechanism has not appeared of broad coverage for grants to needy students, but only a combination of credits and grants for students within the first three income deciles. In general, the problem of student financing remains, with a large unknown in terms of policy, that needs to be quickly resolved.

In terms of grants, the percentage of young people benefiting is notoriously low. For example, in Guatemala, the USAC provides loan-grants for 0.5% of the student population. In Honduras, in 2002 EDUCREDIT awarded grants to 1.5% of students, and credits to 0.6%. In Panama, IFARHU in 2000 granted education credits to 1.04% of the student population. A greater effort has taken place in the Dominican Republic, where in 1999 FUNDAPEC awarded credits to 6.8% of students, and in Nicaragua where in 2001, 16% of students in public and private institutions of Higher Education and some kind of grant. In Costa Rica, from 40% to 55% of public university students had some form of grant awarded by CONAPE, while in Nicaragua, 75% from the public sector enjoyed tuition grants – that is, total or partial exemption from payment of the cost of the course⁷.

The impact that the recent expansion of Higher Education in Latin America has had in terms of socio-economic groups is worthy of note. The situation is not uniform, and the region is characterized by a broad diversity of results in terms of access of the lower deciles of income distribution. In Brazil, for example, 77% of the places for university students are occupied by individuals coming from the three higher deciles of income distribution, a situation not unique in the region. In Chile, the gross Higher Education coverage rate increased from 15.6% in 1990 to 38.3% in 2006. In this case, all income strata had greater access to Higher Education, but especially those of less income, which significantly reduced the access gap between the 5th and 1st quintile from 1990 to 2006. The coverage rate for the 1st quintile increased from 4.6% in 1990 to 17.3% in 2006, while in the 5th quintile there was an increase

6 Schwartzman, Jacques. “O Financiamento do Ensino Superior no Brasil e algumas lições para a América Latina”, study for IESALC. Belo Horizonte, February, 2008.

7 Estrada, Marco R. y Efraín Medina , *op.cit.*

from 39.7% to 80% during the same period. However, enrolments of students from families with the highest incomes was concentrated in private universities, while state universities have 11% of their students from the two lowest quintiles, practically doubling the percentage observed in private universities in the case of these groups. The enrolment structure shows a greater diversity of students in public universities, which are those that most suffer from budgetary problems produced by the new financing model. In general, one sees a serious unequal impact of self-financing policies in institutions of Higher Education, together with a progressive deterioration of the activities of state universities. ECLAC, for its part, has indicated that in Latin America, 40% of the population of university age belong to the less wealthy sectors, which benefit from only 23% of total public spending.

5. Spending on Higher Education

As can be seen in Table 3, in the 1985-2005 period, spending on education, as expressed as a proportion of GDP, grew in the majority of Latin American countries. The average, however, if one excludes the case of Ecuador, a country that presents an increase out of the range, was only 4.1% in 2005; an insignificant increase compared to 1985. Compared to the sample of developed countries included in Table 3, it is evident that Latin American and Caribbean countries spend a significantly smaller proportion of their GDPs on education – a fault that has been emphasized in world reports on competitiveness as one of the most important weaknesses of the region. Together with the observed low labour productivity and the persistence of a regressive income distribution, the low comparative levels that Latin American countries exhibit in terms of investments in education forebode the persistence of these problems

In terms of Higher Education, the data from Table 3 reveal that public spending per student for Higher Education has fallen in practically all of the countries of the region. As the data show, the proportion of per capita GDP spent per student in Higher Education has fallen significantly in almost all countries, with the clear exceptions of Uruguay and El Salvador⁸. This spending is expressed as a proportion per capita product, a variable that has grown significantly, as we have seen. That is, these figures are suggestive in regard to the greater private component in total spending for Higher Education, with the fall of unitary public spending relative to the per capita income of the country. But these data also suggest that the expansion that has occurred in the system as a result of greater demand has resulted in the use of excess resources as well as a simple decrease in the quality of the institutions due to having fewer resources per student⁹. The analysis of this problem, of the adjustment that has taken place in Higher Education systems in Latin America as a product of trends toward lowered public spending, more private spending, and substantial increases in enrolments, is a vital aspect for policy diagnoses.

In general, with an average annual per capita income of US\$7,000 (PPP) for the region,

8 The analysis of spending on Higher Education per student, expressed as a proportion of per capita income, is more interesting as an indicator than the traditional proportion between spending on Higher Education and total public spending on education. The relation of spending per student/per capita income allows us to take into account the expansion of coverage of the system as well as the growth of the national product.

9 In this regard, the stagnation in public resources, together with the growth of tertiary enrolment affects the salaries of public system teachers as well as quality (Cf. IESALC-UNESCO: Informe sobre la Educación Superior en América Latina y El Caribe 2000-2005. (2006, *op.cit.*).

average per-student spending in Latin America is slightly over US\$2,000. Certainly, these figures differ significantly between countries. Even so, they contrast sharply with those of developed countries, where the proportion of resources spent per student for Higher Education is much higher (and also falling, but at lower rates than in Latin America – Table 3). With the current levels of per capita income, average spending per student in the developed countries is nearly four or fives time that which is spent in the Latin American and Caribbean region.

Table 3
Total public spending on education and per student for Higher Education

	(1) Public spending on education (%GDP)		(2) Public spending per student, higher ed. (% of GDP per capita)	
	1985	2005	1999	2004
ARGENTINA	1.4	3.8	17.7	11.8
ARUBA	5.1	5.1	29.0	30.3
BOLIVIA	1.8	6.4	44.1	36.0
BRAZIL	5.0	4.4	57.0	32.6
CHILE	3.8	3.5	37.1	25.8
COLOMBIA	2.8	4.8	49.4	24.6
COSTA RICA	4.1	4.9	55.0	35.9
CUBA	8.9	9.8	86.4	59.0
DOMINICAN R.	1.5	1.8	11.8	9.3
ECUADOR	9.0	17.9	N.A.	34.4
EL SALVADOR	1.5	1.8	9.4	12.1
HONDURAS	4.0	3.6	59.4	N.A.
JAMAICA	4.3	1.3	79.4	40.7
MEXICO	3.7	5.4	47.8	41.3
NICARAGUA	3.4	3.1	N.A.	N.A.
PANAMA	4.4	3.8	33.6	26.5
PARAGUAY	1.5	4.3	58.9	31.6
PERU	2.7	2.4	21.2	12.1
TRIN. & TOBAGO	5.8	3.8	147.6	87.6
URUGUAY	2.6	3.6	19.1	20.1
VENEZUELA	5.0	5.0	53.5	N.A.
Latin America	3.9	4.8	47.8	32.4
			(41.2)*	(28.7)*
AUSTRALIA	8.5	4.7	25.7	22.5
CANADA	na	na	49.0	44.6
FINLAND	5.2	6.5	40.9	36.7
IRELAND	5.5	4.8	28.5	23.9
JAPAN	4.9	3.6	15.2	20.8
MALASIA	6.0	6.2	83.3	71.0

NEW ZEALAND	4.4	6.5	41.6	33.8
PORTUGAL	3.7	5.7	28.1	23.5
SWEDEN	7.3	7.4	54.5	63.1
U.S.A.	4.5	4.7	27.0	23.5
Average	5.0	5.0	39.4	36.3

Sources: (1) World Bank Data Base (2) UNESCO Institute of Statistics (supplemented with data from the World Bank for some countries)
 (*): average excluding Trinidad & Tobago.

As can be seen, these figures indicate a strong propensity toward decreased investment in human capital in Latin America and the Caribbean, in spite of its expected positive impact on economic and social development.

From the perspective of the internal efficiency of institutions of Higher Education, particularly those that are state or public, the low proportion spent of human capital training and innovation is worrisome. Given the extremely limited capacity for generating their own incomes, and the high proportion of total budgets of institutions of Higher Education dedicated to operating costs (principally salaries), the margin available for autonomous investment is relatively low and variable between countries. This supports the diagnosis carried out by IESALC in 2005 which showed that nearly 90% of the public resources are used to cover operating costs, thus limiting the ability to invest, especially in necessary improvements of the system¹⁰. Salary payments explain a large part of the uses of public spending in public institutions of Higher Education, with the figure being 88.4% in Argentina, 61,7% in Chile, 61,3% in Peru, and 84% in Uruguay¹¹. In practice, real investment in public institutions of Higher Education in these countries depends on direct state financing or special financing programs for infrastructure and equipment, such as the first phases of the competitive funds implemented in Argentina (FOMEC), Mexico (FOMES), and Chile (MECESUP). In the cases of Guatemala and El Salvador, the financing of investment programs has also taken place through loans from financial institutions. In Peru, real investment is approximately 3.4%, and in Uruguay around 5.4% of the total funds allocated. In Chile, this figure reaches 6.9%¹², and in Nicaragua 9.9%. Certainly, these values permit only replacement and depreciation, and not a real advance in the capacity to attain better development.

The data in Table 4 highlight another dimension of the problem. Public spending, expressed as a proportion of GDP, is particularly small, given that the majority of countries spend less than 1% of their GDP for Higher Education. Certainly, there is a great diversity as can be seen in the table. The proportion of public spending is declining in the majority of countries if we take into account the last two years. The average of the proportion of GDP expended was 0.60 in 1990, and continued to be so in 2004¹³, indicating that there were no important changes, in spite of the fact that four countries show a reduction, while another four maintain the level, and three showed greater spending in 2004 than in 1990. Countries

10 Regarding this matter, the IESALC-UNESCO report (2006) (*op.cit.*) also emphasises that the tendency prevails in the region to direct nearly 90% of public resources to cover operational costs.

11 These data have been provided through consultant studies contracted by IESALC UNESCO within the context of the MESALC project carried out during 2007 and the first part of 2008.

12 Cáceres, Carlos, *op.cit.*

13 Cuba has been excluded from this calculation which is a case outside the range. The average spending in the region would be 0.65 in 1990 and 0.77 in 2004 if Cuba were included, showing that in the region as a whole, the proportion of spending had grown in the last 15 years.

such as Chile, Nicaragua, Panama, and Uruguay stand out due to their relative stability in terms of the proportion of GDP spent for Higher Education. Brazil and Mexico show very marked trends in growth of public spending in regard to GDP. However, a high fluctuation still predominates in this proportion, presumably as a reflection of the economic cycles of these countries as well as of their political realities.

It is also worthy of note that the IESALC study of 1996¹⁴ showed that, for 1994, the relation of public spending over GDP was 0.88; that is, much higher than that of 2004. This study also concludes that there are important differences between countries. It also notes that there is not rule for establishing a specific relation between the size of the private sector and the relative importance of the budget for Higher Education in relation to the total budget for education. The study finds that only in the cases of El Salvador and the Dominican Republic, the high proportion of coverage of the private sector is in line with a low proportion of the Higher Education budget in relation to the total budget for education.

Table 4
Total public spending on Higher Education as a percentage of GDP

1990	2000	2002	2003	2004	
Argentina	0.44	0.65	0.52	0.53	0.48
Bolivia	0.95	1.21	1.50		
Brazil	1.00	1.06			1.16
Chile	0.43	0.45	0.45	0.42	0.44
Colombia	n.a.	0.73	0.71	0.74	
Costa Rica	1.00	0.90	0.90	0.86	0.86
Cuba	1.23	1.87	2.78	3.27	2.80
Dom. Rep.	0.15	0.35	0.27	0.29	0.27
El Salvador					0.14
Guatemala	0.26	0.27	0.28	0.27	0.14
Honduras	n.a.	1.20	1.20	n.a.	0.28
Mexico	0.50	0.73	0.87	0.84	0.81
Nicaragua	n.a.	1.00	1.20	1.20	1.01
Panama	1.28	1.25	1.27	1.16	1.20
Paraguay	0.20	1.00	0.70		
Uruguay	0.40	0.40	0.50	0.40	0.39

Source: IESALC-UNESCO: Report on Higher Education in Latin America Latina and the Caribbean 2000-2005. The metamorphosis of Higher Education. Caracas, 2006: IESALC-UNESCO, Report of several consultancy elaborated by the group of MESALC proyect.

Needless to say, the figures in Table 4 are not representative of total spending on Higher Education. In effect, as we have emphasized, there is an important private component in this spending that is not necessarily reflected in the trends that mark the fluctuations shown in Table 4. In countries such as Chile, for example, which is one where the development of the private sector of Higher Education has been the most marked, it is estimated that private spending is at least equal (as a percentage of GDP) to what is spent in the public sector. In

14 " Situación y Principales Dinámicas de Transformación", Caracas, 1996 Cap.6 Aspectos Financieros

the cases of other countries, and depending on the degree of development of the private sector and the level attained for self-financing of public institutions through the charging of fees or through private participation in the financing of projects, the total spending figures may also differ significantly in level and rate of change.

6. Spending on R&D

One of the problems of the situation of Higher Education in the region is the negative impact that it exerts on the potential for research and creation. This is, for its part, a fundamental ingredient in the development strategies that the majority of countries have chosen in terms of their orientation toward foreign trade, with earnings being associated with the possibility to create a productive base with greater added value in order to be able to compete in trade. However, the figures on R&D investment are similar to those for spending on Higher Education, and are thus not in agreement with the achievement of the cited economic objectives. The region, on the average, does not invest more than 0.6% of GDP in research and development, while the OECD countries, with whom the region should theoretically compete in trade, or at least attain good conditions for integration in trade, annually invest over 2.5% of GDP.

The average spending on R&D as a proportion of GDP in Latin America and the Caribbean reached 0.54% in the 2000-2006 period. The Southern Cone countries that present the lowest indicators are Peru (0,16%), Bolivia, and Uruguay (0,26%). Although far distant from the developed countries, Argentina stands out with 0.44%, and Chile with 0.68% for 2004. R&D spending as a proportion of GDP in the United States is included here as a reference of a country with a long history of scientific and technological research, with a relatively stable figure of between 2.6% and 2.7% from 2000-2005¹⁵. Graph 1 shows a comparison between various developed countries (France, Germany, Japan, Korea, Canada, Spain, the UK, Sweden, and the United States) with a selection of Latin American countries (Argentina, Brazil, Colombia, Chile, and Mexico)¹⁶. The average for LAC contrasts starkly with the reality of development.

Table 5
R&D spending

	Latin America and the Caribbean	United States
Average 1990-1999	0.51	2.5%
2000	0.55	2.7
2001	0.54	2.7
2002	0.54	2.6
2003	0.54	2.6
2004	0.52	2.7
2005	0.54	2.6

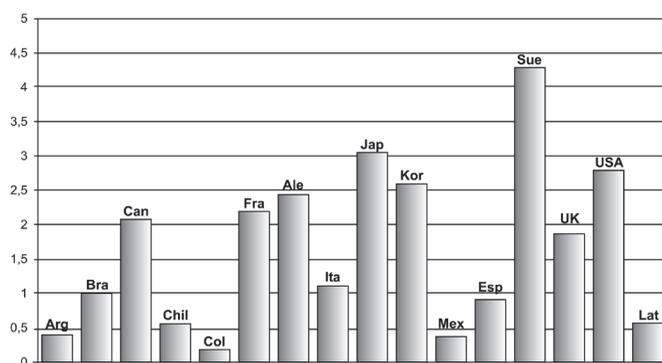
Source: Iberoamerican Network of Indicators of the Science and Technology.

¹⁵ Cáceres, Carlos, *op.cit.*

¹⁶ Riveros, Luis: "Spending in R&D+I: A Challenge for Latin America". Proceedings Annual Meeting of the Royal Overseas Academy of Sciences, Brussels, June 2007.

GRAPH 1

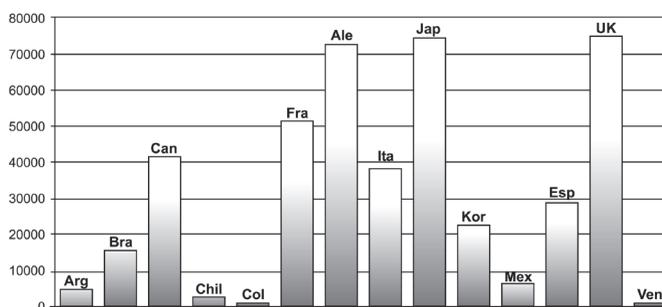
SPENDING IN R&D (% of the GDP)



Source: RICYT (International Register of Science and Technology. Available at: www.ricyt.edu.ar)

GRAPH 2

CSI-PASCAL PUBLICATIONS (2005) (exclude the USA)



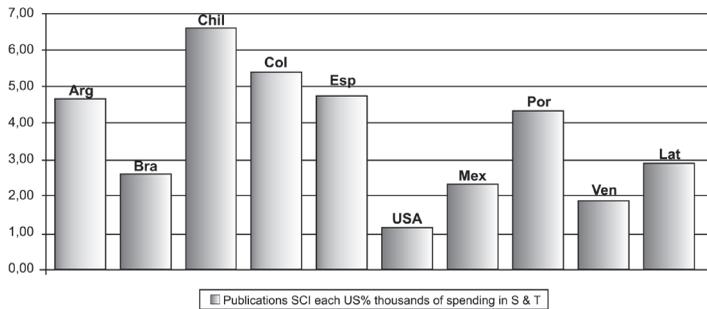
Source: RICYT (International Register of Science and Technology. Available at: www.ricyt.edu.ar)

Graph 2 shows for the same group of countries, to which Venezuela has been added, the results of research as indicated by the CSI-PASCAL list. The contrast that appears in terms of the level of publication in the countries presented reverses considerably when these publications are expressed in terms of the level of spending on R&D in each of the countries (Graph 3). Naturally, the relevance of these publications, and the way the research is eventually converted into products and patents is an aspect that these data cannot reveal. Finally, Graph 4 highlights the scant participation of the private sector in spending on scientific research in Latin America – in open contrast to what occurs in the developed world, with this being one of the causes of the low aggregate spending on R&D in the region. This latter aspect is related to the weak link that apparently exists between academic research and productive applications, which awakens the need to finance specific programs with appropriate policies to this purpose.

However, some meaningful changes have taken place in the region. Argentina, for example, defined in recent years an ambitious strategy under the Secretariat of Science, Technology, and Productive Innovation, to duplicate current investment by 2010, and to go from 0.5% of GDP spent on research and development to 1%. Bolivia formulated a National Science, Tech-

GRAPH 3

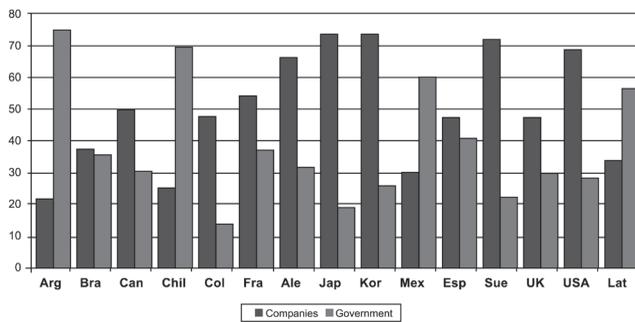
SCIENTIFIC PUBLICATIONS RELATIVE TO R&D EXPENDITURE (2001)



Source: RICYT (International Register of Science and Technology. Available at: www.ricyt.edu.ar)

GRÁFICO 4

FINANCING OF THE SPENDING IN R&D (2001)
(%)



Source: RICYT (International Register of Science and Technology. Available at: www.ricyt.edu.ar)

nology, and Innovation Plan, 2004-2009 (PLANCITI), which proposes growth in research activities and stresses the pertinence of research in regard to objectives of national interest, although the proposal is still without permanent financing to guarantee the achievement of these objectives. In Peru no important changes can be noted in science and technology policies for the 2000-2006 period, nor in its production levels and productivity of R&D. However, there have been changes in the research agenda toward objectives more related to the national interest. In Uruguay, to the problem of low levels of investment in relation to GDP are added the difficulties in organizing a national R&D system, and problems caused by a lack of training of researchers, little innovation, and weak links between productive and research sectors. Over-all, the country shows a slight increase in scientific publications and in graduate programs. In Chile, during the 1999-2006 period, new programs were created for financing research and development, aimed at strengthening research – principally applied research and technology transfer (the Millennium Scientific Initiative and Funds for Innovation). Up to the present, however, these efforts have not meant a significant change in available resources, nor has there been greater involvement of the private sector in the financing of R&D. One should

also mention as well the sector-related funds created by the Ministry of Science and Technology of Brazil, as well as the Millennium Institutes, which have had a great impact on the total R&D spending of that country. Finally, Ecuador included a fixed transfer of 5% of the budget of the planning coordination agency, which in 2005 represented an increase of resources for research from one to thirty-six million dollars between 2004 and 2007, being a reflection of the improved economic period experienced by the country.

7. Major challenges in the financing of Higher Education

In light of the evidence and arguments presented above, one may establish seven aspects that represent challenges in terms of the financing of Higher Education in Latin America. The sequence does not necessarily follow an order of priorities of the importance of each one of these aspects.

(1) Access, Equity, and Quality

A basic challenge of public policy is to consolidate the observed increase in the coverage of Higher Education, without leaving aside qualification and competency standards of graduates when entering the labour market. The increased coverage of institutions of Higher Education in the region has been achieved without significant improvements in the qualifications of new students, as well as little emphasis on the profiles of graduates and the quality of training provided by institutions of Higher Education. The impacts on equity and on social mobility are scant or null if better coverage is accompanied by high rates of dropout and precarious conditions of employability, productivity, and future labour income. In countries in which Higher Education depends mostly on public financing, the most important political challenge is how to assure greater effectiveness of such spending on Higher Education, while assuring access and competitive levels of quality to low-income populations. The achievement of greater efficiency in the execution of public spending demands reforms at the institutional level of public agencies and state universities, as well as financing instruments that emphasize the allocation of resources based on results, rather than solely on historical criteria or those based on inputs. Countries with systems based on private or mixed financing face a similar dilemma between access and quality, since increases in coverage rates of Higher Education is based on the incorporation of young people with lower incomes and with greater prior academic shortages, which increases the cost of their training if they are to be retained in the system. Given that tuition costs have reached high levels in relation to per capita incomes, it is difficult to imagine that the greater cost required to train students entering Higher Education with these difficulties could be paid through new increases in tuitions. Thus, institutions of Higher Education that depend on private sources of financing should seek additional resources through new sources such as the development of new products in Higher Education (including graduate and post-degree programs), greater contributions from private donors, or through competing in international markets, which would require high levels of quality and efficiency. If this is not accomplished, just as in the case of public universities, the adjustment variable could be a significant sacrifice in levels of quality.

(2) Foster the training of high-level technicians, and improve the functioning of the market

High level technical courses offer lower private return, and enjoy less social recognition than those provided by universities. However, in a context of asymmetries of information, distortions may exist in the assessment that people make of one and the other; especially in terms of the respective labour markets. The lower profitability of high-level technical courses observed at the aggregate level may conceal situations of individual courses that present higher private and social returns than some at the university level, and which are determinant for the development of some productive sectors of national public interest. The challenge is to improve the access that student have to information regarding labour markets at the level of courses and institutions. To this end, states must produce the relevant data and furnish the dissemination mechanisms. Moreover, the failings of the market due to differences between social and private benefits of high level technical courses requires a more active role for public policy. One option is to align incentives for innovation and development of particular clusters in key productive sectors, with selective scholarships and credits that provide incentives to students to pursue technical courses compatible with such development.

(3) In a context of university autonomy, improve the relevance of undergraduate and graduate programs according to the demands of society and of the labour market

The need of a better response to the demands of society and of the labour market contrasts with the low level of innovation existing in institutions of Higher Education. The crucial point is how to encourage necessary changes in order to create this response, without affecting the autonomy of the institutions, establishing incentives such as the competitive funds of Chile and Argentina. Strategies with higher levels of intervention require institutional agreements such as, for example, performance agreements between states and universities. The effectiveness of the latter, however, will depend on the level of resources and on the governability that exist within institutions of Higher Education. The challenge here is to achieve a better interrelation between institutions of Higher Education and the productive sector, together with appropriate incentives managed centrally in order to foster and develop this closer relationship. Accreditation systems should be strengthened in order to establish mechanisms for assuring the profiles of graduates in accordance with the needs of society and of the labour market, and that assess the most appropriate curricula and provide other relevant inputs.

(4) Improvements in the internal efficiency of institutions of Higher Education

There is a trend toward adopting public policies aimed at improving the internal efficiency of institutions of Higher Education, although this varies appreciably between countries. Some signs of internal inefficiency are high drop-out rates in some courses and universities, delays in graduating, low graduation rates, and duplication of contents between undergraduate and graduate programs. It is necessary to determine the cost of training students as a product distinct from research and extension that are not connected to teaching. This in itself is difficult. But it is even more so, considering the enormous dispersion of costs existing in Latin America, as noted by an IESALC report. In any case, the increase in costs

due to the inefficiency of institutions of Higher Education leads to higher public cost per student – in the case of universities that are dependent on public financing – or leads to increases in fees that are paid by students and their families, when the source of financing is private. The challenge lies in discovering how to increase the effectiveness of policies for improving the internal management of the institutions, through instruments that do not affect the autonomy of institutions of Higher Education. The experience of Europe, through the Bologna Agreement, is a reference that some Latin American countries are considering, through a combination of agreements and incentives.

(5) Public financing granted through the supply side (the institutions), or the demand side (the students)?

The countries of Latin America and the Caribbean seek to introduce reforms and policies for creating regulation and financing mechanism that foster the consolidation of an education system with public and private providers that contribute to the attainment of objectives of national public interest. The challenge here is the type of financing that will characterize the system during its expansion. A supply side financing scheme supports the provision of public goods, emphasizing the allocation of resources based on inputs, and not on products or outcomes, emphasizing institutional purposes, but not necessarily the fulfilment of the objectives pursued by public policies. Demand side financing, within a context of tuition charges, is based on the principle of institutional universality and neutrality, in which students receive state subsidized grants and credits in order to finance their Higher Education studies based on their individual preferences, social situations, and vocational criteria. This financing scheme provides incentives for the development of institutions of Higher Education that respond to quality/price criteria. Given the high growth of enrolments in private Higher Education with the context described, supply-based public financing of state universities increasingly competes with the growing demand side financing available for students of public and private universities. As the proportion of young people from lower social strata continues to increase in private institutions of Higher Education, demand side financing instruments acquire more importance and effectiveness. The policy challenge is to maintain an appropriate balance in terms of institutional development, given the fact that public universities produce irreplaceable results for society, but that need to be identified and financed in a specific way. Demand side financing, on the other hand, requires emphasizing necessary mechanisms of regulation and information so that decisions may be optimized, and the development of the private sector not be unnecessarily associated with a reduction in academic quality. Accreditation efforts should be strengthened, as well as improvement of the design of competitive funds and credit assistance, and in the form of grants to students according to their merits.

(6) A change in R&D investment policies

There is a concern in practically all countries of Latin America and the Caribbean for increasing investments in R&D as a proportion of GDP. There are few countries, however, that possess sources of financing that assure the proposed goals. Currently, scientific and technological research is concentrated in a very small number of universities with some relevance in terms of international standards. In the recent Jiao Tong Institute of Shanghai

ranking of the best 500 universities in the world, only eight Latin American universities were included, with four in Brazil, two in Chile, and one each in Mexico and Argentina. Even considering the limitations of the indicators used in these rankings, one must recognize that the low relevance of the region in general academic terms is a product of insufficient development, low investments in the area, and the lack of training of PhDs that strengthen existing graduate programs and sustain the critical mass of researchers in new specialties. The challenge lies in effectively increasing the proportion of the product dedicated to research and development, creating mechanisms that effectively put into practice a better system of control for results, and that makes it possible to adequately focus on applied research able to effectively link itself with the great productive dilemmas of economies.

(7) Greater proactivity in the financing of public institutions of Higher Education

The governments of Latin American and Caribbean countries should commit themselves much more to the financing of state or public Higher Education. This is especially the case for universities in which the production of public goods and externalities associated with academic work are derived from evident social and political needs. Certainly, policy design should also consider the role that the private sector plays in the expansion and improvement of the quality of Higher Education systems.

Beyond this, however, public institutions of Higher Education should play a crucial role as quality referents of Higher Education in face of the need to foster quality educational development and of not having obvious regulation instruments in this matter. A system with public institutions of Higher Education that act as referents requires well-financed institutions with adequate management and levels of complexity – especially in the provision of graduate programs and basic and applied research – with the ability to publicly demonstrate their results and with an adequate critical size, in order to thus effectively exert influence on the system. States cannot support new financing mechanisms if at the same time they do not develop better results-based allocation of resources and substantially increase system transparency, avoiding endorsing the development of a state Higher Education sector that is massive, inefficient, and not firmly linked to graduate and research tasks.

8. Final considerations

The Latin American and Caribbean region has experienced significant expansion in the coverage of Higher Education, particularly at the university level. At the same time, during the last five years the economic conditions of Latin American countries have improved considerably compared to their recent history. This should make it possible to carry forward a financing effort for Higher Education and scientific and technological research. In effect, investments in research and development have been sluggish, while public spending on Higher Education has tended to fall in recent years. In consequence, the observed greater expansion of enrolments has taken place due to greater private financing, or simply at the cost of lower quality based on the full use of a probable idle capacity. This situation creates an adverse distributive impact and damages the aspirations of the region in terms of sustaining its economic development. In

effect, available international indicators show a significant lag in the region in financing levels for Higher Education and for research and development, thus postponing the preparation of highly-trained human capital and the creation of knowledge applicable to production.

The principal policy dilemma of Latin America and the Caribbean lies using public resources to improve the financing conditions of Higher Education. In order to do so, it is necessary to carefully define possible scenarios in terms of the efficiency and effectiveness of this cost, and to establish priorities and mechanisms for public spending to find its place. This requires revising the basis of public policies in terms of their task in the generation of public goods, and to maintain the most appropriate combination of public and private spending in order to serve the objectives that each country in terms of equity and the targeting of public spending to social priorities.

Moreover, public policy should design instruments for introducing greater efficiency into the response of institutions of Higher Education to the needs of society and of labour markets. In this regard, there is no doubt that an important restriction is the existence of an university autonomy that should be respected as the basis of academic work. However, a strength that should underline policies should be based on the design of adequate financial incentives and in the establishment of an effective and transparent accreditation system that fosters an appropriate response from institutions of Higher Education. In this sense, the development of advanced technical education, and the introduction of applied research programs should depend, not only on financing policies, but even more so on adequate models of incentives directed at institutions of Higher Education and on researchers.

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Future Views for the Transformation of Higher Education.

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Hebe Vessuri

Venezuelan anthropologist, born in Argentina. Doctorate (D.Phil.) in Social Anthropology from Oxford University. Currently directs the Department of Science Studies and coordinates the graduate program in Department of Science Studies and coordinates graduate program in Social Studies of Science of the Venezuelan Institute of Scientific Research (IVIC), Caracas. She has contributed to the creation and consolidation of the field of social studies of science and technology in Latin America. Put into place initiatives on national, regional, and international levels through teaching and research, and initiated graduate programs in various Latin American countries. Her research focus is in the sociology and contemporary history of science in Latin America, political science, the sociology of technology, the interface between Higher Education and scientific research, the problems of specialized knowledge and democracy, and aspects related to participation and social exclusion. She is associated with the editorial boards of various international journals, including *Interciencia*, *Redes*, *Revista de Educación Superior y Sociedad de IESALC-UNESCO*, *Social Studies of Science*, *Science, Technology & Society*; *Industry & Higher Education*. She is a member of the Governing Board of the United Nations University (UNU) in Tokyo, and President of the Latin American Scientific Committee of the UNESCO Forum on Higher Education, Research, and Knowledge. An Advisor to UNESCO-IESALC, in the past she has served as Vice-President of the International Union of Anthropological and Ethnological Sciences (IUAES), and its representative in the International Social Science Council (ISSC). In 2006, she received the National Science Award of Venezuela.

José Dias Sobrinho

The holder of a Doctorate of Human Sciences (Education, 1975, Universidad Estadual de Campinas, Unicamp, Brazil). Dr. Sobrinho has a post-doctorate from the School of Advanced Studies in the Social Sciences of Paris (1977-1979). He is a full professor of the Graduate Program in Education of Uniso (Universidad de Sorocaba) and retired from Unicamp. At Unicamp, he was Vice-Rector of Graduate Studies, and Director of the School of Education. He presided over the Special Assessment Commission (MEC, Brazil). He is a contributor to the Global University Network for Innovation, GUNI-UNESCO (author of the document *Accreditation of HE in Latin America and the Caribbean*, in: *Higher Education in the World*, 2007) and to the Institute of Higher Education in Latin America and the Caribbean, IESALC-UNESCO. He is a member of the Advisory Council of INEP/MEC, Brazil, and Director of the journal *Avaliação*. The author of five books on globalization, Higher Education, and es-

pecially, the assessment of Higher Education. He has also edited five books on the assessment of Higher Education, directed 47 editions of the journal *Avaliação*, and is the author of more than 60 chapters and articles on the themes of assessment and of Higher Education.

Eduardo Aponte-Hernández

A professor and researcher of the Centre of Research on Education, and coordinator of the UNESCO Chair on *Management, Innovation, and Collaboration of the University of Puerto Rico*. He received a masters degree in Planning and Public Administration from the UPR, a doctorate in the economics of education from the University of Massachusetts, and a post-doctorate from Stanford University, USA in Higher Education and Development of Countries in Transition. He has published dozens of monographs, articles, and documents in books, journals, and in international, regional, and local academic electronic sources. He has been Associated Academic Executive Director of the Higher Education Council of Puerto Rico (1986-1989), advisor (1990-2008), President of the Puerto Rican Association for Higher Education (1999-2002), and member of the Board of Directors of the International Council for Innovation in Higher Education, Toronto-Tokyo (1998-2008), and visiting professor in Argentina, USA., Mexico, the Dominican Republic, and Venezuela.

Jorge Landinelli

A Uruguayan political scientist, Dr. Landinelli is a Full Professor of the School of Social Sciences of the Universidad de la República (UDELAR / Uruguay), of which he was Dean for two consecutive periods between 1995 and 2003. He has been a teacher-researcher at the Latin American School of Social Sciences FLACSO / Mexican headquarters) and on different occasions has been a visiting professor in universities in Argentina, Brazil, Chile, Mexico, and Spain. His scientific research activities have included different thematic fields, particularly in: social movements and political processes in Uruguay, public policies and institutional development of Higher Education in Latin America, having published articles in journals, books, and contributions in books as a co-author. He is a specialist in university assessment and accreditation policies, an area in which he has held different management responsibilities, and has been a consultant and technical advisor in his country and with the MERCOSUR. Within the framework of broad international academic activity, since 2003 he has been a member of the Scientific Regional Committee for Latin America and the Caribbean of the UNESCO World Forum on Higher Education, Research, and Knowledge.

Xiomara Zarur Miranda

A nutritionist, trained at the Universidad del Atlántico and with a Masters in Human Nutrition from the Universidad de Chile, and a masters degree in university administration from Universidad de los Andes. She was Dean of the School of Nutrition (1991 - 1994), Director of the Office of Planning (1994 - 1996) of the Universidad del Atlántico, in which she taught, attaining the level of Titular Professor III. In addition, supervised studies in the Masters Program in Social Development of the Universidad del Norte (1990); was Executive Director of the Atlantic Coast Association of Institutions of Higher Education (November,

1993 – February, 1998), and is currently Academic Coordinator in research at the Colombian Association of Universities -ASCUN- (since February, 2000). Among her publications are: *The Question of Higher Education of the Atlantic Coast* (1995) in the journal *ASIESCA*. Vol.1, N° 1, p 5-10, 1995; *Financial Management Models* (1997) UNESCO/CRESALC. Serie Políticas y Estrategias N° 9, p 71 – 73; *The New Higher Education Providers in Colombia* (2005) Serie Estudios sobre educación superior en Colombia, Vol. 4; *Current Situation and Perspectives of University Communication Media in Colombia* (2004) Serie Estudios sobre educación superior en Colombia Vol. 7.

Ernesto Villanueva

From Argentina, Mr. Villanueva has an undergraduate degree in sociology from the Universidad de Buenos Aires. He has been President of the National University Assessment and Accreditation Commission of Argentina, an entity of which he continues to be a member. He was also President of the Ibero-American Network for Accreditation of the Quality of Higher Education. He was Vice-Rector of the Universidad Nacional de Quilmes, Director of the National Scientific and Technical Research Council, and Secretary-General of the Universidad de Buenos Aires, being in charge of its rectorate. He has given courses on the subjects of university Higher Education, assessment, and accreditation, and has given courses, seminars, and conferences in various countries in Latin America and Europe. He has published articles in specialized journals, collaborated on books in the specialty, and has been a visiting professor in Latin American and European universities. Currently, he is titular professor of sociology at the Universidad Nacional de Quilmes. At this institution he also directs research projects related to the themes of social movements and the constitution of political subjects.

María José Lemaitre

A sociologist with post-graduate studies in education, Ms. Lemaitre is currently Director of the Academy of the International Institute for Quality Assurance, and entity that in the framework of the Inter-University Development Centre (CINDA) carries out consulting and accreditation related to the continuous improvement of quality of Higher Education in Latin America and in other countries. She presides over the Inter-American Network for Accreditation of the Quality of Higher Education (RIACES), is Vice-President of the International Network for Assurance of the Quality of Higher Education (INQAAHE), and a member of the International Commission of the Council for Higher Education Accreditation of the United States (CHEA). She has published numerous articles and developed consulting activities for government agencies and international organizations in various countries of South America, Central America, the Caribbean, the Middle East, North Africa, and South East Asia.

Sueli Pires

A Brazilian with a doctorate in Linguistics and Discourse Analysis from the Universidade de São Paulo, Dr. Pires holds a *Diplôme d'Etudes Supérieures* from the University of Geneva, Switzerland, and holds a masters degree in Linguistics from the Universidade

Federal de Minas Gerais. She was Graduate Vice-Rector of the Universidade Federal de Minas Gerais, Undergraduate Vice-Rector, Director of International Relations, and Coordinator of the Graduate Program in Linguistic Studies of the same university. She has been a member of the National Committee for Restructuring of the Area of Knowledge of the National Research Council – CNPq – of Brazil. She has participated in various assessment committees of projects programs and institutions of the Brazilian Ministry of Education and of the Brazilian agency CAPES. She was titular representative of Brazilian public universities in the National Forum of Graduate and Research Vice-Rectors of the State of Minas Gerais. She has carried out research in the areas of linguistics, discourse analysis, applied linguistics, native language teaching, and public Higher Education policy. She has published specialized books and essays, and has supervised various undergraduate and graduate student research projects (eleven masters theses and eight doctoral dissertations). Currently, she is the Academic Coordinator of IESALC/UNESCO, where she is academic coordinator and is coordinating the project “Accreditation and Assessment Systems of Graduate Programs in Latin America and the Caribbean”.

Daniel Samoilovich

Since 1993, Daniel Samoilovich has been Executive Director of the Asociación Columbus, a network of European and Latin American universities created to foster international cooperation and institutional development. The activities of the association focus on improving management, including stimulating quality in teaching and cooperation with external actors for the benefit of regional development. He was the founding director of the advanced institute, “Mario Boella” for information and communication technologies (Turin, Italy) from 1999 to 2001. Beginning in 2001, he has cooperated with the Torino Wireless Foundation (Turin), which fosters development of ICTs in the Piedmont region, in synergy with other public and private actors. Among the activities of Torino Wireless are research and development, company speed-up and the development of risk capital. As Executive Director of Columbus, together with regional entities and other public and private institutions of Latin America and Europe, he fostered the “Euro-Latin American Forum for Regional Development-Based Innovation” (www.forumtorino.org), of which he is the director. He recently published a study entitled *Government Scenarios in European Universities* Colección Documentos CYD, No. 8, Barcelona, agosto, 2007, and *Paths to Innovation. Re-thinking the governance of public universities in Latin America*, prepared especially for this conference.

Luís A. Riveros

State Professor (U. Técnica del Estado), the holder of a Master in Science with Mention in Economics (Universidad de Chile), Master of Arts and PhD in Economics – The University of California, Berkeley. Full Professor of the Universidad de Chile (School of Economics and Business) since 1977; Economist of the Research Division of the World Bank, Washington, DC (1985-1991); consultant for international organizations (World Bank, IDB, ILO) since 1989. Rector of the Universidad de Chile (1998-2006), Dean of its School of Economics and Business (1994-1998) and Director of the Department of Economics (1991-1994). Dr. Rive-

ros is currently a member of the Executive Council of IESALC-UNESCO, of the Board of the Directors of the World Research Institute of the Association of Universities of the Pacific Rim (APRU), Director of the Asia-Latin America Centre of the Universidad de Chile, and President of AKREDITA (Chilean Agency for Accreditation of the Quality of Education). He is the author of more than 60 published articles in specialized journals in the areas of economics, economics of education, labour and salary subjects, and the distribution of income. He has authored 12 books and has contributed with specific chapters to another 16. An Honorary Professor of the Universidad Autónoma de Nuevo León - México (School of Business Administration) and Associate Professor of the Universidad Autónoma de Barcelona (School of Education). He has received awards from the Universidad Central de Venezuela, Université de Lille of France, Universidad de Córdoba of Argentina, Universidad de San Marcos of Peru, Universidad Andrés Bello of Venezuela, and the University of Gothenburg of Sweden.