

NON-PAPER

*Towards a Latin American and Caribbean Plan of Action
for the Information Society
eLAC 2007*

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INTRODUCTION

In order to move towards the formation of an information society that will benefit all the inhabitants of Latin America and the Caribbean by promoting development, consolidating democracy and strengthening regional integration, all the countries of the region need to engage in a dialogue and, on that basis, build an agenda for expediting this process and reducing its economic and social costs. To this end, in the Bávaro Declaration as approved in January 2003 at the Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the World Summit on the Information Society, the Governments of Latin America and the Caribbean spoke of the fundamental need to devise means of developing the information society based on strategies whose scope extends beyond the limits of national borders.¹ Furthermore, the Declaration of Principles adopted at the World Summit reaffirmed this assertion, stating (11,62) that “Regional integration contributes to the development of the global information society and makes strong cooperation within and among regions indispensable.” It goes on to observe that “Regional dialogue should contribute to national capacity-building and to the alignment of national strategies with the goals of this Declaration of Principles in a compatible way, while respecting national and regional particularities.”

Given the similarity of their challenges and possibilities in the field of information and communication technologies (ICTs), the countries of the region now have a historic opportunity to adopt regional measures to expedite the creation of an information society and thereby contribute to the achievement of an inclusive and socially cohesive form of development. Concerted action at the regional level would serve to enhance national strategies and help ensure that the digital revolution contributes to the region’s development. This calls for efforts to formulate and build agreements based on close collaboration among the public and private sectors and civil society (Bávaro Declaration, 2 a.).

Outside the region, strategic long-term perspectives have been combined with short-term plans in order to build a flexible capacity for responding to the enormous dynamism of the information society’s technologies. The region has employed the Declaration of Principles and Plan of Action adopted at the World Summit on the Information Society as long-term strategic guidelines. The latter document sets forth objectives to be achieved by 2015, in conjunction with the Millennium Development Goals of the United Nations. These elements have provided the foundations for a regional plan of action for 2005-2007 (eLAC 2007) which is proposed here as a first step along that road.

While the consolidation of an inclusive information society calls for joint action on the part of the public and private sectors and a large number of civil society organizations, eLAC 2007 focuses on action that national Governments can take based on the many public, private and civil society initiatives now under way. Since the vast majority of the countries in the region have already defined at least the basic elements of their national strategies, the chief aim here is to delineate targets and activities that will help lead the region towards the formulation and implementation of a regional plan of action that draws together elements shared by the various national strategies and seeks to take advantage of their complementarity. To this end, a fairly broad range of targets deriving from national priorities are set forth,

¹ At its fifty-sixth session, the United Nations General Assembly approved the proposal that the World Summit on the Information Society be held in two phases, the first in Geneva from 10 to 12 December 2003 and the second in Tunis from 16 to 18 November 2005. The World Summit will be attended by heads of State and Government and other prominent world leaders. Its long-term aim is to have issues such as poverty, environmental degradation and the development of an information society be placed at the top of the global agenda [www.itu.int/wsis]

with the idea being that the countries can then work together to pare them down to a few viable and effective targets on which they can concentrate their efforts.

1. The starting point

A number of countries in the region have already issued declarations of principles and plans of action that delineate national strategies for consolidating an information society. Others are in the process of doing so. In addition, other digital development initiatives and efforts are taking on a more solid profile. In fact, many countries have set up coordination mechanisms as part of their governmental structures, along with forums for dialogue among the public, private, academic and non-governmental sectors. There are a wide variety of institutional arrangements in the region, but they all have one thing in common: where an authority responsible for providing strategic orientation has been established, it is cross-cutting in nature and is positioned at a fairly high rank within the government structure (often taking the form of an inter-ministerial committee or a high-level council that reports to the Office of the President). At the same time, certain units in ministries or services are taking the lead in various areas, with the spheres of e-government, education and connectivity so far being the most advanced. A generation of public-sector innovators has thus been emerging that has succeeded in overcoming budgetary and bureaucratic constraints in order to deliver effective, prompt service to the community.

In much of the region, however, comprehensive public policies and effective operational instruments are still a long way off. The main problems hindering the information society's development are a lack of coordination within the public sector; institutional rigidities; the difficulty of transferring budgetary resources to states, provinces, districts and municipalities; the fact that some sectoral ministries have been slow to mainstream digital development into their policies; delays in the judicial branch's digital modernization; the slowness of progress in human resources development in the field of ICTs; and the lack of common standards for the public and private sectors.

The growing awareness of the strategic importance of digital development indicates that the time is ripe for deepening existing strategies for the information society and taking a qualitative leap forward in this direction, both of which are necessary in order to firm up the positive trends now taking shape.

All the countries of the region should soon have concerted national strategies in place that include an element of international cooperation, not only outside the region, but also within it. A regionally concerted strategy based on viable initiatives could provide some middle ground between the international community's ambitious aims and the needs associated with actual conditions in the Latin American and Caribbean countries.

2. From political consensus to an operational agreement

The countries of Latin America and the Caribbean have agreed upon a series of principles to guide them along the path towards an information society. This effort is reflected in the Declaration of Florianopolis (July 2000), the Declaration of Itacuruça (October 2000), the decision reached by the Ministers for Foreign Affairs of the Rio Group to set up a working group on information technologies (March 2001), the Rio de Janeiro Declaration on ICT for Development (June 2001), the Agenda for Connectivity in the

Americas and Plan of Action of Quito (August 2002), the Latin American and Caribbean Regional Network of the United Nations ICT Task Force and the Bávaro Declaration (January 2003).²

The next step should be to agree upon a plan of action that provides for viable initiatives, quantitative targets and clear-cut regional coordination and follow-up mechanisms. Concerted action in working towards the information society would provide the region with a valuable coordination experience in the field of technology. Given the differing levels of digital development attained by the countries of the region, not all the goals discussed here can be expressed in quantitative terms, however. Thus, in some cases, results-based targets have been foregone in favour of lines of action. The reasons for adopting those lines of action and the levels of the quantitative targets are based on studies cited here, particularly two analyses conducted by ECLAC: *Desafíos para el desarrollo de la Sociedad de la Información en América Latina y el Caribe*; and *Benchmarking the WSIS Plan of Action in Latin America and the Caribbean*.³

Examples of coordination are to be found in other areas of development in the region, and efforts in other regions also provide a valuable frame of reference.⁴ An examination of what has been done in each case indicates that long-term strategic directions (declarations of principle) and short-term objectives (plans of action) are complementary and effective regional coordination tools so long as they are synchronized and systematically used as sources of feedback for each other.

In sum, using the Millennium Development Goals⁵ and the measures proposed at the World Summit on the Information Society as strategic points of reference, the countries of the region should adopt a plan of action for 2005-2007. This plan of action should focus on a limited number of measures that have been defined on the basis of their importance, urgency and viability. It is crucial to this effort that an effective institutional structure be created to facilitate coordination among the countries of the region. The countries might also wish to request international and regional organizations, non-governmental organizations and private-sector associations to form task forces to support the digital dimension's integration into specific policy agendas.

² See United Nations, "Declaration of Florianópolis" [online] <<http://www.eclac.cl/publicaciones/SecretariaEjecutiva/3/lcl1383/florianopolis.htm>>; United Nations Educational, Scientific and Cultural Organization (UNESCO), "Declaración de Itacuruçá" [only-line] <http://webworld.unesco.org/infoethics2000/documents/rec_latam_sp.rtf>; <http://www.europa.eu.int/comm/external_relations/andean/intro/santiago28_03_01_es.htm>; Red Regional para América Latina y el Caribe del Grupo de Trabajo de las Naciones Unidas sobre Tecnologías de la Información y de las Comunicaciones, Declaración de Río de Janeiro de las TIC para el Desarrollo [en línea] <http://lacnet.unicttaskforce.org/Docs/Declaracoes/Rio%20de%20Janeiro%20Declaration%20on%20ICT%20for%20Development.PDF>>; Comisión Interamericana de Telecomunicaciones (CITEL), "Agenda de Conectividad para las Américas y el Plan de Acción de Quito" [en línea] <<http://www.citel.oas.org/sp/Agenda%20Conectividad.asp>>; Red Regional para América Latina y el Caribe del Grupo de Trabajo de las Naciones Unidas sobre Tecnologías de la Información y de las Comunicaciones, "Primera Reunión de la Red Regional para América Latina y el Caribe del Grupo de Trabajo de las Naciones Unidas sobre Tecnologías de la Información y de las Comunicaciones" [en línea] <<http://lacnet.unicttaskforce.org/Docs/Report%20First%20Meeting%20final.doc>> y Comisión Económica para América Latina y el Caribe (CEPAL), "Declaración de Bávaro" [en línea] <<http://www.eclac.cl/prensa/noticias/noticias/9/11719/Bavaro finalesp.pdf>>.

³ *Desafíos para el desarrollo de la Sociedad de la Información en América Latina y el Caribe*, CEPAL, 2005, y *Benchmarking the WSIS Plan of Action in Latin America and the Caribbean*, CEPAL, 2005.

⁴ See, for example, European Union (EU), "eEurope: an information society for all; eEurope 2002; eEurope 2005" [online] <http://europa.eu.int/information_society/eeurope>

⁵ <http://www.un.org/spanish/millenniumgoals/index.html>.

3. Priority issues and first steps

The agreements adopted at the World Summit on the Information Society and at the regional level, particularly the Bávaro Declaration, suggest that the region's priorities as set forth in the Latin American and Caribbean plan of action for the information society should come under four thematic clusters (see table 1). These clusters reflect the conceptual framework developed by ECLAC for use in analysing the information society in Latin America and the Caribbean.⁶

Table 1
**FROM THE BÁVARO DECLARATION AND THE PLAN OF ACTION OF THE WORLD SUMMIT
 TO THE LATIN AMERICAN AND CARIBBEAN PLAN OF ACTION
 FOR THE INFORMATION SOCIETY**

Latin American and Caribbean plan of action for the information society (eLAC 2007)	Bávaro Declaration	Plan of Action of the World Summit
A. Access	2(b), 2(c), 2(e), 2(h)	B, C2
B. Capacity-building and knowledge creation	2(d), 2(f), 2(j), 2(k)	C3, C4, C11
C. Public-sector transparency and efficiency	2(l)-(q), 2(t)	C7, C8, C9
D. Policy instruments	2(a), 2(g), 2(i), 2(r), 2(s), 2(u), 2(v)	C1, C5, C6, C10, D, E

This model encompasses the issues of access to ICTs, the skills and knowledge required in order to make the most of the technology base, public services that put the new technology-based paradigm into practice and public policy instruments for promoting the development of the information society. Access is the most fundamental prerequisite in order for society to make the fullest possible use of information and knowledge. The discriminatory, unequal access to ICTs (referred to as the “digital divide”) prevailing in the region has created new forms of inequality within and between societies. While universal access is a precondition for the consolidation of the information society, it is not sufficient in itself, as this process also calls for the development of the skills required in order to make full use of ICTs and to progress from merely accessing information to creating knowledge. The point of using ICTs is to digitize information and communication flows in different spheres of society, thereby enhancing the efficiency and transparency of the social structure and the production system. The public sector should play a key role in digitization by transforming its own processes and services. It should lead the development of the information society not only by example, but also by encouraging the rest of society to adopt these new forms of interaction.

⁶ See, for example, Economic Commission for Latin America and the Caribbean (ECLAC), “Road maps towards an information society in Latin America and the Caribbean”, *Libros de la CEPAL*, No. 72 (LC/G.2195/Rev.1-P) [online], Santiago, Chile, July 2003 (<http://www.eclac.cl/publicaciones/DesarrolloProductivo/1/LCG2195Rev1P/lcg2195e2.pdf>), and Martin Hilbert and Jorge Katz, *Building an Information Society: A Latin American and Caribbean Perspective* (LC/L.1845) [online], Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), January 2003 (<http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/2/11672/P11672.xml&xsl=/ddpe/tpl/p9f.xsl&base=/ddpe/tpl/topbottomdirector.xsl>).

The continued progress of ICT-based digitization and the development of the skills needed to use these technologies are contingent on the existence of an enabling environment in related policy areas. Otherwise, the transition to the information society will be obstructed by bottlenecks. The most important requirements in this regard are financing instruments for the development of ICTs and the provision of skills training for all, regulatory frameworks for enhancing market efficiency and legal provisions aimed at building trust and security. As these policy areas are interdependent, it is necessary to develop mechanisms for coordination, synergy-building, follow-up and evaluation. Some countries are already taking action in this regard under “connectivity agendas”, “e-strategies” or “digital plans”. While the World Summit process is geared to developing coordination at the global level, the current challenge for Latin America and the Caribbean is to move forward with the preparation of a regional plan of action.

A. ACCESS AND DIGITAL INCLUSION

The development of digital infrastructure that provides universal access at a reasonable cost is essential in building an information society for all. This is necessary not only to narrow the digital divide, but also to turn digital development into a powerful tool for reducing the social inequalities observed in the region.

1. Regional infrastructure

A first requisite for the future development of the information society in Latin America and the Caribbean is the strengthening of the regional Information and Communication Technology infrastructure. Various challenges, such as missing broad-band connectivity and the balanced distribution of the cost of international Internet connection systems, are widely known in the region and hamper current progress. Without an adequate and strong regional ICT infrastructure, the development of the information society does not count with the technological basis for its future progress. Various initiatives in the region, such as the initiative for the integration of the regional infrastructure of South America, point to tackle this outstanding challenge.

The first target should therefore be to develop and strengthen a regional ICT infrastructure, including broad-band capacity and the creation of regional root-servers, back-bones and traffic exchange points, considering especially the reduction of Internet access costs. Regional studies of the reduction of Internet connection costs should accompany the process.

2. Public access centres

The strides made in the region in terms of community access have won international recognition. Together, five countries in the region —Argentina, Bolivarian Republic of Venezuela, Brazil, Chile and Mexico— have more than 10,000 government-supported community access centres, not including school networks.⁷ Given the existing percentage of the region’s population that does not have private Internet access, it can be calculated that each of these centres has a potential user base of 50,000 people. However, the progress made thus far is insufficient; these centres meet the needs of only a small percentage of the

⁷ In addition, there are many commercial access points (cybercafés and information centres) in the Latin American and Caribbean countries, especially Peru and Argentina.

population⁸ and are highly concentrated in just a few cities. A number of countries therefore plan to expand their networks of public access centres in the next few years.⁹ Moreover, experience shows that both public and private community access models have run up against sustainability problems.¹⁰

In view of the countries' positive experiences and the impact of the policies they have implemented, as well as the outstanding challenges they continue to face, the second target should be to reduce the average size of each community Internet centre's potential user base to 20,000 people. At the same time, steps should be taken to strengthen these centres' quality and sustainability by upgrading them from access points to service centres equipped to offer training, information and other services.

3. School connectivity

The countries of the region have made strenuous efforts to promote ICT and Internet access in public schools.¹¹ In this regard, the Agenda for Connectivity in the Americas and the Plan of Action of Quito have proposed that the region's first goal should be "for all students and teachers to have access to ICTs in their classrooms, schools, libraries and other learning environments" within the next decade.¹² Much remains to be done, however, and rates of school Internet access are far lower in the region than in developed countries.¹³ Even more worrisome is the fact that connectivity is practically non-existent in some countries' primary and secondary schools.

Accordingly, the third target should be to connect at least one third of the region's schools to the Internet and to significantly reduce the number of students per computer in educational institutions. This will call for the adoption of innovative initiatives and the establishment of cooperative relationships between school authorities and ICT suppliers.¹⁴

⁸ In Mexico in 2003, only 10% of the population in need of community access (i.e., without Internet access at home) was served by public information centres or telecentres. See Federal Telecommunications Commission (COFETEL), "Indicators workshop on community access to ICTs" [online], October 2003 (http://www.itu.int/ITU-D/ict/mexico03/doc/pdf/Doc07_Erev1.pdf).

⁹ Brazil has a multi-year plan aimed at establishing 6,000 telecentres by 2006. Chile, on the other hand, is focusing on ensuring the sustainability of existing information centres and upgrading them to service centres.

¹⁰ In Peru, a typical information centre's lifespan does not exceed 14.5 months. In Nicaragua, the number of information centres fell from 71 to 43 between 2002 and 2003 (German Agency for Technical Cooperation (GTZ), *Estudio sobre las experiencias de telecentros en Nicaragua*, 2003). The problem is that a telecentre's annual operating costs typically approach or even exceed its installation costs (Peter Stern and others, *Tecnologías de información y comunicación al servicio de la competitividad y la integración sudamericana, Plan de Acción*, Inter-American Development Bank (IDB), Andean Development Corporation (ADC), Financial Fund for the Development of the River Plate Basin (FONPLATA), December 2003).

¹¹ In Chile, which has been implementing a large-scale Internet connectivity programme (called "Enlaces") in its public schools for more than 10 years, a 2003 socio-economic survey found that 37% of the country's Internet users access the network via educational institutions, while 35% have Internet access at home.

¹² Agenda for Connectivity in the Americas and Plan of Action of Quito, March 2003 (http://www.citel.oas.org/Connectivity/Final%20English%20ACAPAQ-march-5-2003-v3_i.pdf), p. 33.

¹³ In Colombia, the ratio of students to computers in formal educational institutions was 36 to 1 in 2001; in Chile it was 30 to 1 in 2005. In Europe, the average was 12 to 1 in 2002.

¹⁴ Canada has a programme called "Computers for Schools" that recycles personal computers for student use. Argentina and Colombia are doing this as well. Other countries, such as Ecuador and Jamaica, are about to launch similar programmes to provide schools with low-cost, high-efficiency ICT equipment (<http://cfs-ope.ic.gc.ca>).

4. Municipal connectivity

One of the objectives set out in the Plan of Action of the World Summit on the Information Society is to connect all local government departments (including municipalities) to the Internet by 2015. Although the region has come a long way in this regard, the target is a very demanding one for many countries.¹⁵ For others, the main problem is ensuring that the new technologies are used efficiently and comprehensively. This task requires organizational adjustments, training and, in particular, the availability of useful and timely Internet content.

Thus, the fourth target should be to provide Internet access to at least half of the region's local governments in urban areas and at least a third of the ones in rural areas. This initiative should include the provision of services to local governments from centralized agencies, personnel training and the development of local content and communication.

5. New access technologies

One technology that has awakened growing interest and expectations is interactive digital television. While the cost of this technology is currently high, it is widely agreed that digital television has extraordinary potential. Many decisions that will affect the future of digital television must be taken in the present, but most of the Latin American and Caribbean countries have only just begun to discuss regulations and standards in this area.¹⁶ The delay in addressing this issue should not be allowed to hold back the region's progress; the opportunities that will emerge from the widespread use of digital television are too important to miss, and the countries must therefore begin preparing to migrate to this new technology. Apart from the standard to be chosen, a key issue will concern the public services to be provided to citizens through digital television. The introduction of interactive public-sector applications in the areas of public services, health, social security, education and culture is vital for tapping this new technology's potential to promote social inclusion and cohesion.

Accordingly, the fifth target should be to set up a regional working group to prepare, in ongoing consultation with the private sector, a proposal on alternatives and strategies for developing the use of digital television in Latin America and the Caribbean. The group should emphasize the formation of an alliance among the interested parties and should test at least three possible public-sector applications of digital television under different circumstances and in different countries of the region.

¹⁵ In 2004 only 10% of the municipalities in El Salvador were connected, meaning that connectivity will have to increase by 26% per year in order to reach complete coverage by 2015. In Guatemala, the required annual rate of increase is 20%, while in Panama and Honduras it is nearly 50%. The poorer and more isolated a municipality, the more difficulties it encounters in establishing and maintaining connectivity.

¹⁶ There are three technical standards for digital television: the digital video broadcasting (DVB) standard developed in the European Union, which has already been adopted in many Asian countries; the Advanced Television Systems Committee (ATSC) standard developed in the United States; and the Integrated Services Digital Broadcasting (ISDB) standard developed in Japan.

B. CAPACITY-BUILDING AND KNOWLEDGE CREATION

The digital revolution in Latin America and the Caribbean is taking place at a time when population growth rates are falling dramatically. Over the next 10 years, the challenge will be not only to educate new generations of children and young people, but also to broaden the learning opportunities available to the working-age population. In some countries of the region, over 65% of the population currently of working age (between 15 and 64) will still be economically active in 2015. This suggests that the development and diffusion of digital technologies largely depends on the generations that are already part of the working-age population.

The formation of human capital for the information society in Latin America and the Caribbean represents a crucial investment for furthering development, enhancing the competitiveness of the region's firms, creating employment, reducing poverty and giving the entire population opportunities for progress and participation. Ongoing research, education and training should be the main thrust of the efforts undertaken in the next few years. Unless the necessary skills are developed, investment in technology will not have the desired impact on the production system. These skills can be bolstered through the development of alternative digital applications and access to software.

1. Free and open source software

In the Declaration of Rio de Janeiro, adopted on 23 November 2004, at the Third Latin American and Caribbean–European Union Ministerial Forum, Ministers and heads of delegations valued “efforts to develop projects and practices that use free and open-source software”.¹⁷

Free and open source software may become an important instrument in the promotion of cooperation among countries of the region. Freedom to acquire knowledge and change source codes, stimulates networking leading to the integration of a large number of institutions and programmers involved in its development.

Governments of the region should widen their knowledge on the advantages and positive externalities offered by free and open source software, particularly in relation to security, technology autonomy and cost reduction.

Exchanging ideas, experiences and best practices in this area should be promoted as well as capacity building and training of technical experts towards the development of open software and the migration of systems.

A regional stocktaking of best practices and initiatives could be promoted, implemented and consolidated by electronic means, primarily in the areas of social value, such as digital inclusion, wireless access, collaborative environments, customization of applications for public access centers, educational and cultural applications.

¹⁷ Third Latin American and Caribbean – European Union Ministerial Forum on the Information Society, Rio de Janeiro, Brazil, 22-23 November 2004 (http://europa.eu.int/comm/europeaid/projects/alis/alis3_foro/declaration_of_rio_en.pdf).

Accordingly, the sixth target should be to set up a regional working group to exchange experiences with the development of open-source and free-source software and to conduct studies on technical and organizational challenges encountered in migrating from one system to the next. This group should realize a regional stocktaking exercise about successful initiatives and programs of free and open-source software, to disseminate best practices about the positive externalities of its usage. The result should be presented during the second phase of the Summit, to be held in Tunis in November 2005.

2. User training

Training business owners, workers and users to master new technologies is a daunting challenge. Many countries of the region have resources and incentives for promoting technical and professional training, and most of them have already begun to provide training for the information society. Ambitious efforts are being made to train microentrepreneurs and small business owners in the intensive use of ICTs. No less important are the “digital literacy” campaigns being launched in the region, which offer basic courses to familiarize people with the everyday uses of Internet-connected computers and to provide training in those areas.

eLAC 2007 should draw upon the initiatives undertaken by different countries of the region. Thus, the seventh target should be to provide training for the information society to at least 10 million people, or 5% of the labour force.¹⁸ This endeavour should involve all available forms of human resources development: third-level training; skills development for business owners, professionals and workers; and digital literacy courses for communities, with special emphasis on unemployed persons, women and other disadvantaged, marginalized or vulnerable groups.

3. Interconnection of research networks

Innovation-oriented ICT science and technology infrastructure must be created in order to develop the information society. This includes not only information sciences and engineering, but also the social sciences, given that the study of the economic, social, political and cultural impact of ICT is a prerequisite for the design of public policies and the building of sustainable social pacts. As the countries of the region face similar problems and challenges, the promotion of research and development processes and comparative studies to address technological challenges are important tools for the regional development of the information society.

The eighth target should therefore be to develop advanced research networks at the national level and to expand and maintain the CLARA research network in all the countries of the region; these efforts should include connecting the CLARA network to similar networks in other parts of the world. A special effort will need to be made in this connection in the Caribbean countries.

¹⁸ According to the ECLAC *Statistical Yearbook*, the occupational category “directors and senior civil servants” accounts for 4.9% of the Latin American and Caribbean labour force. Merely focusing digital literacy campaigns primarily on this group (a sine qua non for the development of the information society in the region) will suffice to meet the target.

4. Internet governance

The Declaration of Principles states that “The international management of the Internet should be multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations.” In Latin America and the Caribbean, one fourth of the governments are directly involved in Internet governance issues, while in half of the cases academic entities carry out the lead role. The current system of management of the core resources of the Internet is the result of an evolutionary process that has taken place over a remarkably short time. The discussions during the World Summit on the Information Society showed that some countries of the region see room for improvement in the institutional settings that have resulted from this process. A balance between effectiveness and legitimacy is at the core of the ongoing discussion. Effectiveness alone does not generate legitimacy.

In order to strike such balance in each case, countries can exchange experiences about Internet governance, sharing best practices. The ninth target is therefore to promote regional dialogue and exchanges on experiences about Internet governance, including capacity-building courses about national management of ccTLDs, considering legitimate institutional models and the development of the technological infrastructure.

C. PUBLIC-SECTOR TRANSPARENCY AND EFFICIENCY

Unlike previous technological revolutions, the digital revolution has wide-ranging implications for the public sector as a service provider that uses, stores, processes and distributes information on a larger scale than any private enterprise. Over the last five years, several Governments in the region have begun to provide information and public services via the Internet. This has resulted in considerable progress in terms of transparency and efficiency and has acted as a catalyst for computerization and the use of ICTs throughout society.

1. e-Government

The public sector offers great opportunities but also faces formidable challenges. Argentina, Brazil, Chile, Colombia and Mexico are among the 25 most advanced countries in the world in terms of e-government services on the web (thus outranking countries like Italy, Japan, Portugal and Spain). Other countries in the region, however, are trailing far back and are thus much further down on the list. This heterogeneity underscores the urgent need to strengthen intraregional cooperation in such areas as the transfer of technology, platforms, computer applications and the relevant knowledge and skills. Many technological solutions have already been developed, and the adaptation costs are relatively low, especially in the case of open-source standards.

Countries that have made the most progress, on the other hand, are faced with increasingly complex tasks. For them, it is no longer simply a matter of providing centralized public services that allow users to access information and carry out procedures online. In these cases, the aim is for the entire public sector to have its own broadband infrastructure, along with common platforms and standards, to serve municipalities, post offices, public clinics and other public service centres.

The tenth target is therefore to set up and strengthen e-government service networks while also facilitating the transfer of technology, platforms, computer applications and software and the relevant knowledge, skills and best practices.¹⁹

2. e-Learning

Although many countries in the region have increased the number of computers and Internet connections in schools, the technological infrastructure remains somewhat underused. e-Learning entails much more than digital connectivity. Suitable content has to be developed in order to ensure that ICTs are integrated into the curriculum and the classroom. Important aspects of this approach include continuing education and professional development programmes to provide teachers with more advanced ICT training.

The creation of educational Internet portals featuring multimedia content, software and technical documentation is an effective tool to capitalize upon the educational opportunities offered by the information society.²⁰ The facts that, compared with other regions of the world, the Latin American and Caribbean countries' education systems are based on a small number of common languages facilitates the exchange of educational content.²¹

The eleventh target should therefore be to promote the interconnection of educational portals in all the region's countries to create educational networks and to establish cooperative arrangements with civil society and private-sector portals.²²

3. e-Health

Digital networks and technologies offer enormous opportunities for the consolidation of effective, efficient, high-quality health services for the entire population. Thus far, however, the incorporation of ICTs into the day-to-day management and delivery of health services is trailing behind the degree of integration being achieved in education and other public services. In almost all of the region's countries, health ministries are relatively uninvolved in national ICT strategies. Furthermore, only one third of the region's ministries furnish online health education services and a mere one fifth of them provide interactive information on reproductive health.

The twelfth target should therefore be to promote regional health information networks that include common standards and the exchange of computer applications and programs, national experiences

¹⁹ This involves fostering and supporting networks set up with the assistance of the Institute for Connectivity in the Americas (ICA), the Organization of American States (OAS) and the United Nations Department of Economic and Social Affairs for the exchange of subregional and regional experiences.

²⁰ In 2003, 76% of Chilean teachers used the "educarChile" portal and 49% downloaded information to use in class. (Study by the Catholic University of Chile, Links Project, 2003).

²¹ The marginal costs of sharing digital content are practically nil. While it may cost millions of dollars to develop an educational multimedia program, it costs virtually nothing to reproduce it.

²² Although countries such as Argentina and Chile have been working to produce high-quality educational content for almost a decade now, a network of this type would permit the rapid incorporation of countries with little experience in this field. The proposal is to strengthen the Latin American Network of Educational Portals, which was set up at the first Meeting of Ministers of Education of Latin America on Education Technology in August 2004 with the participation of 17 members and support from the Institute for Connectivity in the Americas (ICA) and the Inter-American Development Bank (IDB).

and best practices. These networks should backstop national initiatives for setting up and maintaining digital health services and information networks.

4. Management of natural disasters

The countries of the region have attached a great deal of importance to creating and perfecting early warning systems and disaster response networks. For many countries, especially those in the Caribbean and Central America, these systems are vital tools for saving lives and protecting economic infrastructure. The use of real-time digital networks to help prevent natural disasters and deal with their effects should therefore be an essential part of a national strategy for the information society.²³

The thirteenth target should therefore be to expand the regional and international interconnection of digital networks in order to assist in disaster management, prevention and information services and to upgrade their applications.²⁴

D. POLICY INSTRUMENTS

Progress towards the information society hinges less on computers and fiber optic cables than it does on conventions, institutions and public policies that can either encourage or hamper learning and innovation. The nature of the information-society environment is largely determined by the characteristics of the host society. In this sense, supporting the development of an enabling environment and of appropriate institutions and policy instruments will facilitate the implementation of decentralized initiatives for enhancing the information society.

1. Coordinating mechanism

The Bávaro Declaration calls for the promotion of strategies and programmes for fostering the information society based on the participation of the relevant stakeholders in each country. Accomplishing this will require the creation of opportunities for dialogue and consensus-building; support at the highest political level; a precise definition of the roles and responsibilities of each public agency; clear-cut targets; and mechanisms for follow-up and appraisal (Bávaro Declaration, 2 a.). Crucial

²³ Some national networks already use cutting-edge technology: the (Mexican) Centre for Disaster Prevention (CENAPRED), the National Autonomous University of Mexico (UNAM) and the United States Geological Survey (USGS) jointly operate a program that permits real-time monitoring of the Popocatepetl volcano. One of the services provided by the system, which has been used by over 5 million people, is access to satellite images on its web site.

²⁴ This initiative takes account of the region's existing national disaster prevention, management and information systems, which provide data on earthquakes, floods, hurricanes, volcanoes, tsunamis and seaquakes, forest fires, landslides and droughts. It is therefore proposed that support be provided for the creation of regional and subregional disaster information networks such as the Regional Disaster Information Centre for Latin America and the Caribbean (CRID), the Network for Social Studies on Disaster Prevention in Latin America, the PAHO disaster office serving South America, the Coordination Centre for Natural Disaster Prevention in Central America (CEPREDENAC), the International Strategy for Disaster Reduction (ISDR), the Caribbean Disaster Emergency Response Agency (CDERA), and the Caribbean Disaster Information Network (CARDIN).

factors for the success of such efforts include consensus on viable initiatives and government commitment to established goals and targets, as well as periodic, transparent assessments and benchmarking.

A fundamental step, which has already been taken by some countries of the region, is to establish “a working group at the highest possible level”.²⁵ This group should be chaired by a government official with the legal and governmental authority to coordinate its work with all relevant stakeholders and institutions in the different fields addressed by the digital development strategy, as well as to represent the country in regional and international meetings on the information society.

The fourteenth target should therefore be for all the region’s countries to set up a coordinating entity or mechanism for their national strategy, or, if such a mechanism already exists, to strengthen it before the second phase of the World Summit on the Information Society.

2. Participatory national action plans

Various countries in the region have established programmes or plans of action in which the main national stakeholders are taking part. Given the existing agreements in this area and the fact that many actions are carried out on a decentralized basis, it is crucial that agreement be reached on a set of priority initiatives at the national level.²⁶ This will serve to mobilize resources in the public and private sectors and in society in general that might otherwise be unavailable²⁷ and to facilitate the solution of coordination problems that interfere with or limit the effectiveness of such initiatives. Last but not least, it would also encourage the development of comprehensive policies in problem areas (such as health) where few countries have made significant progress.

National action plans need to be translated into subnational programmes or plans of action (for individual provinces, states, regions or municipalities). Countries should keep sight of such subnational measures’ necessarily subsidiary position vis-à-vis the national strategy and bear in mind the need for local initiatives to complement each other. In this context, the convergence of standards is essential.

The fifteenth target should therefore be to formulate national plans of action for developing the information society in all countries of the region while ensuring the participation and support of the main civil-society and private-sector stakeholders and of all relevant public-sector agencies.

²⁵ Inter-American Telecommunications Commission (CITEL), “Agenda for Connectivity in the Americas and Plan of Action of Quito” [online] March 2003 <http://www.citel.oas.org/Connectivity%20Agenda.asp>., p. 1.

²⁶ The United Nations Development Programme (UNDP) is assisting countries such as Bolivia, Colombia and the Dominican Republic with the development of participatory methodologies. Similar assistance is being provided by the Inter-American Development Bank (IDB).

²⁷ According to the Secretariat of the Caribbean Community (CARICOM), cooperation between potential contributors and leaders in small countries facing complex challenges may help to mobilize the resources needed to formulate and implement national strategies. Caribbean Community (CARICOM) Secretariat (2003), *Towards CARICOM Connectivity: Agenda 2003 & Platform for Action*, Marcelle, Gillian (2004), [online] <http://www.caricom.org/archives/regional%20ict/caricomconnectivity.htm>; “Creative Leadership for Building Caribbean Information Society”, presented at the CARDICIS Workshop Society for Information and Cultural Diversity in the Caribbean, Saint Lucia, [online], http://www.caricom.org/archives/regional%20ict/caribbean_info_soc-marcell.pdf.

3. Financing

In order to mobilize financing for digital development, it is necessary to determine which activities may be carried out separately by the private sector, the public sector or civil society and which will require the interaction of two or more of these sectors. Accomplishing this will call for ongoing efforts at the institutional level. Implementing a plan of action for the information society is predicated on the existence of financing policies that can ensure the efficient use of existing instruments, the development of new tools and the establishment of an enabling environment in which market dynamism will be coupled with the mobilization of an increasing level of private resources.

The sixteenth target should therefore be to establish a standing working group to assess additional national and regional financing requirements and to devise mechanisms for accessing larger volumes of resources, making better use of existing instruments and creating new ones through the interaction of public, private and international agencies. The working group should submit an initial report during the second phase of the World Summit on the Information Society.

4. Second-generation universal access funds

The countries of the region have set up universal funds to facilitate access to telecommunications for the populations of rural and low-income areas. These initiatives position these countries at the leading edge in this field. The next step is to provide not only telephone service but also Internet connections using the latest wired and wireless technologies.

The seventeenth target should therefore be to examine public policies concerning universal-access options with a view to broadening the concept of ICT connectivity and stepping up to second-generation universal access programmes.

5. Regulatory systems for the telecommunications sector

The region is witnessing a rapid deployment of new wired and wireless communications technologies, a wave of mergers and acquisitions that are transforming the telecommunications market, and the emergence of new value-added services in the context of vertical and horizontal integration processes.

All this has placed a strain on the regulatory framework that emerged in the 1980s and 1990s and has sparked debates on a range of issues of critical importance for the expansion of access, including the allocation of radio frequencies, the disaggregation of networks, Internet Protocol Telephony and rate-setting, and regulatory and oversight institutions and their jurisdictions, all within a context that is still marked by a considerable degree of monopolistic power. Thus, the possibility exists that the expansion and potential of the new technologies may be undermined by regulatory, institutional and administrative barriers to the necessary reduction in telecommunication costs.

The eighteenth target should therefore be to systematically pursue a regional dialogue aimed at facilitating regulatory convergence and hence the adoption of new wired and wireless technologies with a view to expanding access, supporting full network integration and bolstering competition.

6. Legal framework

Digital communications and transactions must be secure and reliable if the information society is to transform the way in which production and social processes are organized. The initiatives adopted in this regard include online authentication mechanisms; protection of the privacy and confidentiality of personal and corporate records; participation by countries of the region in designing suitable international standards; recognition of electronic documents and digital signatures and the corresponding certifying agencies; quality certification of digital network products and services; legal recourse for dispute settlement and better management of information overload and spam (Bávaro Declaration, 2 (g)). Most of the countries in the region have laws and decrees in place that govern these matters.

The multitude of laws on this subject underscore the need to seek rules that will lead to harmonization and standardization, both regionally and subregionally (Andean Community, Southern Cone, Central America and the Caribbean). This process is more advanced in some cases than in others owing to the existence of close historical ties and growing economic integration. The Andean Community has made progress in the area of digital signatures and e-contracts, while MERCOSUR has made headway in the field of privacy protection. Central America and the Caribbean have the advantage of being latecomers and can thus avoid the mistakes made by other countries if they review existing laws and use that examination as a basis for a speedy formulation of an appropriate regulatory framework.

The nineteenth target should therefore be to set up subregional working groups to establish and promote the application of harmonization mechanisms and standards that can serve as the basis for a reliable, solid legislative framework. Special attention should be paid to privacy protection, computer crime, digital signatures and online transactions. These subregional groups should submit work plans during the second phase of the World Summit on the Information Society.

7. Information of public domain and knowledge sharing

Measures for providing the general public with greater access to information, knowledge and cultural resources in the public domain, including the reasonable use of information and knowledge for educational and scientific purposes, are important for the development of the information society. Various countries in the region already developed and applied freedom of information legislation. Furthermore, the process of knowledge creation and the generation of value may be stimulated through the development of a knowledge-sharing culture.

The twentieth target should therefore be to promote and encourage policies and initiatives for broadening the population's digital access to public information possessed by the State and to cultural, historical, scientific and educational resources. The most relevant and effective legislation and initiatives of this type should be disseminated as best practices.

8. Monitoring and follow-up

In the Florianopolis Declaration of 2000, the region undertook to "promote the creation of a regional 'observatory' to monitor the impact of information technologies on the economy and other related cooperative measures". The standardization of indicators, both within and beyond the region, is an essential first step in arriving at an understanding of the various trends and patterns involved in the development of the information society.

Five years after the adoption of the Declaration, a number of initiatives have been launched. Qualitative observatories have been put in place that serve as news centres and facilitate the exchange of experiences.²⁸ In 2003, the Observatory for the Information Society in Latin America and the Caribbean (OSILAC) was set up to: (i) centralize data, indicators, methodologies and qualitative information from all over the region; (ii) standardize and harmonize ICT indicators at the local, national and subregional levels; and (iii) increase and upgrade ICT data in the region.²⁹

The twenty-first target should therefore be to support and encourage the incorporation of questions on ICT access and use into statistical instruments and questionnaires through direct technical cooperation programmes and to organize annual technical seminars on the subject in conjunction with national statistical bodies. The exchange of methodological experiences and practices is essential in this connection, as some of the region's national statistical institutes possess highly valuable expertise in this area.

²⁸ International bodies such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Development Programme (UNDP), civil society organizations, universities, research centres and the private sector use e-mail, newsletters, computer portals and interactive discussion groups.

²⁹ The creation of OSILAC was announced at the second meeting of the Statistical Conference of the Americas of the Economic Commission for Latin America and the Caribbean (ECLAC) (June 2003) thanks to an agreement between ECLAC and the Institute for Connectivity in the Americas (ICA) (see ECLAC, "Report of the Second Meeting of the Statistical Conference of the Americas of the Economic Commission for Latin America and the Caribbean" (LC/L.1939 (CEA.2003/10)), Santiago, Chile, 2003, para. 58, p. 13). During its first year of operation, the Observatory's activities included: (i) a follow-up and benchmarking report on the Plan of Action of the World Summit on the Information Society, in which 120 figures and tables show the implementation status of the 29 articles agreed upon by the international community; (ii) definition and formulation, in conjunction with national statistical institutes, of eight key questions for household surveys and five key questions for questionnaires to be used in business surveys in Latin America and the Caribbean; (iii) involvement in the compilation of a global list of key questions, with special attention being devoted to the particular characteristics and needs of developing countries (during the side event "Measuring the Information Society" (UNCTAD/OECD/ITU/UIS/UN Regional Commissions / UN ICT Task Force / World Bank), 7-9 February 2005, Geneva, Switzerland, presented by Finland); and (iv) collaboration with the telecommunications sector (ITU, Regulatel and CITEL) on the ongoing standardization of ICT infrastructure indicators.

E. TOWARDS A LATIN AMERICAN AND CARIBBEAN PLAN OF ACTION FOR THE INFORMATION SOCIETY

The region is in a position to undertake a plan of action for three reasons. First, there is very little opposition to the issue, and governments are attaching increasing importance to it. Second, most countries have already embarked on projects in this field and are using incentives and regulations to create the relevant institutions. Third, the fact that the countries of the region have already issued political declarations on the subject within the framework of the World Summit on the Information Society provides an opportunity to strengthen existing cooperation agreements and initiatives. It is vital to capitalize upon the possibilities offered by the information society, which opens up an extraordinary opportunity to promote regional integration.

The way forward is clear: the strategies, policies and programmes under way in each country should be taken to a deeper level and should be aligned with one another at the regional level so that they can be implemented on a larger scale while at the same time reducing learning costs and expanding common benefits. Past experience and existing agreements should be used as a basis for implementing viable initiatives and setting precise targets with a view to stepping up the pace of progress in the region and measuring results.

The aim of eLAC 2007 is to raise the profile of ongoing activities within a fairly short span of time and to support the launch of new initiatives. To this end, viable and quantifiable targets have been set where appropriate. The Latin American and Caribbean countries have expressed their political will in this respect on numerous occasions; now is the time to set targets and take concrete steps to achieve them.

Annex

**TARGETS FOR THE PROPOSED LATIN AMERICAN AND CARIBBEAN
PLAN OF ACTION FOR THE INFORMATION SOCIETY**

A. Access and digital inclusion		
Target	Action	Deadline
1	Develop and strengthen a regional ICT infrastructure, including broadband capacity and the creation of regional root-servers, back-bones and traffic exchange points, considering especially the reduction of Internet access costs. Regional studies of the reduction of Internet connection costs should accompany the process.	Mid-2007
2	Reduce the potential user base average of each community Internet centre's to 20,000 people and strengthen these centres' quality and sustainability by upgrading them to service centres that offer training, information and other services.	Mid-2007
3	Connect one third of the region's schools to the Internet and significantly reduce the number of students per computer in educational institutions.	Mid-2007
4	Provide Internet access to half of the region's local governments in urban areas and one third of rural local governments. This includes the provision of services to local governments from centralized agencies, personnel training and the development of local content and communication.	Mid-2007
5	Set up a regional working group to prepare, in ongoing consultation with the private sector, a proposal on alternatives and strategies for developing the use of digital television in Latin America and the Caribbean. The group should test at least three possible public-sector applications of digital television under different conditions and in different countries of the region.	Mid-2007
B. Capacity-building and knowledge creation		
	Action	Deadline
6	Set up a regional working group to exchange experiences with the development of free and open-source software and to conduct studies on technical and organizational challenges encountered in migrating from one system to the next. This group should realize a regional stocktaking exercise about successful initiatives and programs of free and open-source software, to disseminate best practices about the positive externalities of its usage. The result should be presented to the World Summit on the Information Society.	November 2005
7	Provide training for the information society to at least 10 million people, or 5% of the labour force. This endeavour should involve all available forms of human resources development: third-level training; skills development for business owners, professionals and workers; and digital literacy courses for communities, with special emphasis on unemployed persons, women and other disadvantaged, marginalized or vulnerable groups	Mid-2007
8	Develop advanced research networks at the national level and expand and maintain the CLARA research network in all the countries of the region; these efforts should include connecting the CLARA network to similar networks in other parts of the world.	End of 2006
9	Promote regional dialogue and exchanges on experiences about Internet governance, including capacity-building courses about national management of ccTLDs, considering legitimate institutional	Mid-2007

	models and the development of the technological infrastructure.	
C. Public transparency and efficiency		
	Action	Deadline
10	Set up and strengthen networks of e-government services while also facilitating the transfer of technology, platforms, computer applications and software and the relevant knowledge, skills and best practices.	Mid-2007
11	Promote the interconnection of educational portals in all the region's countries in order to create educational networks and to establish cooperative arrangements with civil society and private-sector portals.	Mid-2007
12	Promote regional health information networks that include common standards and the exchange of computer applications and programs, national experiences and best practices. These networks should backstop national initiatives for setting up and maintaining digital health services and information networks.	Mid-2007
13	Expand the regional and international interconnection of digital networks in order to assist in disaster management, prevention and information services and to upgrade their applications.	Mid-2007
D. Policy instruments		
	Action	Deadline
14	Set up or confirm a coordinating entity or mechanism for each national strategy in every country.	November 2005
15	Formulate national plans of action for developing the information society in all countries of the region while ensuring the participation and support of the main stakeholders in civil society and the private sector and of all relevant public-sector agencies.	Mid-2007
16	Establish a standing working group to assess additional national and regional financing requirements and to devise mechanisms for accessing larger volumes of resources, making better use of existing instruments and creating new ones through the interaction of public, private and international agencies. The working group should submit an initial report during the second phase of the World Summit on the Information Society.	November 2005
17	Examine public policies concerning universal-access options with a view to broadening the concept of ICT connectivity and stepping up to second-generation universal access programmes.	Mid-2006
18	Systematically pursue a regional dialogue aimed at facilitating regulatory convergence and hence the adoption of new wired and wireless technologies with a view to expanding access, supporting full network integration and bolstering competition.	Mid-2007
19	Set up subregional working groups to establish and promote the application of harmonization mechanisms and standards that can serve as the basis for a reliable, solid legislative framework. Special attention should be paid to privacy protection, computer crime, digital signatures and online transactions. These subregional groups should submit work plans during the second phase of the World Summit	November 2005

	on the Information Society.	
20	Promote and encourage policies and initiatives for broadening the population's digital access to public information possessed by the State and to cultural, historical, scientific and educational resources. The most relevant and effective legislation and initiatives should be disseminated as best practices.	Mid-2007
21	Support and encourage the incorporation of questions on ICT access and use into statistical instruments and questionnaires through direct technical cooperation programmes and to organize annual technical seminars on the subject in conjunction with national statistical bodies.	Mid-2007