

7. Infrastructure and Regulatory Environment

Telecommunications

→ MANDATE

The Heads of State and Government addressed the issue of telecommunications at the Quebec Summit of the Americas and recognized that the progress made in the areas of telecommunications and information technologies open up countless opportunities for individual and collective development in the region, the growth in the economies. Conscious of the disparities in cost—and access to technology within and between the countries of the region—in the Quebec City Plan of Action, governments pledged—in cooperation with the private sector—to promote measures to modernize the telecommunications sector, bearing in mind that the full potential of telecommunications will be realized only if relevant applications and services are available, and if people are aware of and capable of using modern information technologies. Access is increasing, but it is essential that content be disseminated in various languages, and that remote areas in Latin America and the Caribbean build greater network capacities to enable them to receive and use information in a timely fashion.

Countries have fulfilled several mandates set out in the Quebec City Plan of Action, largely through the assistance of the Inter-American Telecommunication Commission (CITEL). CITEL programs aim at awareness, capacity building, and analysis of relevant and critical telecommunications issues.

The Summit requested the promotion of an Agenda for Connectivity in the Americas—in the form of national agendas

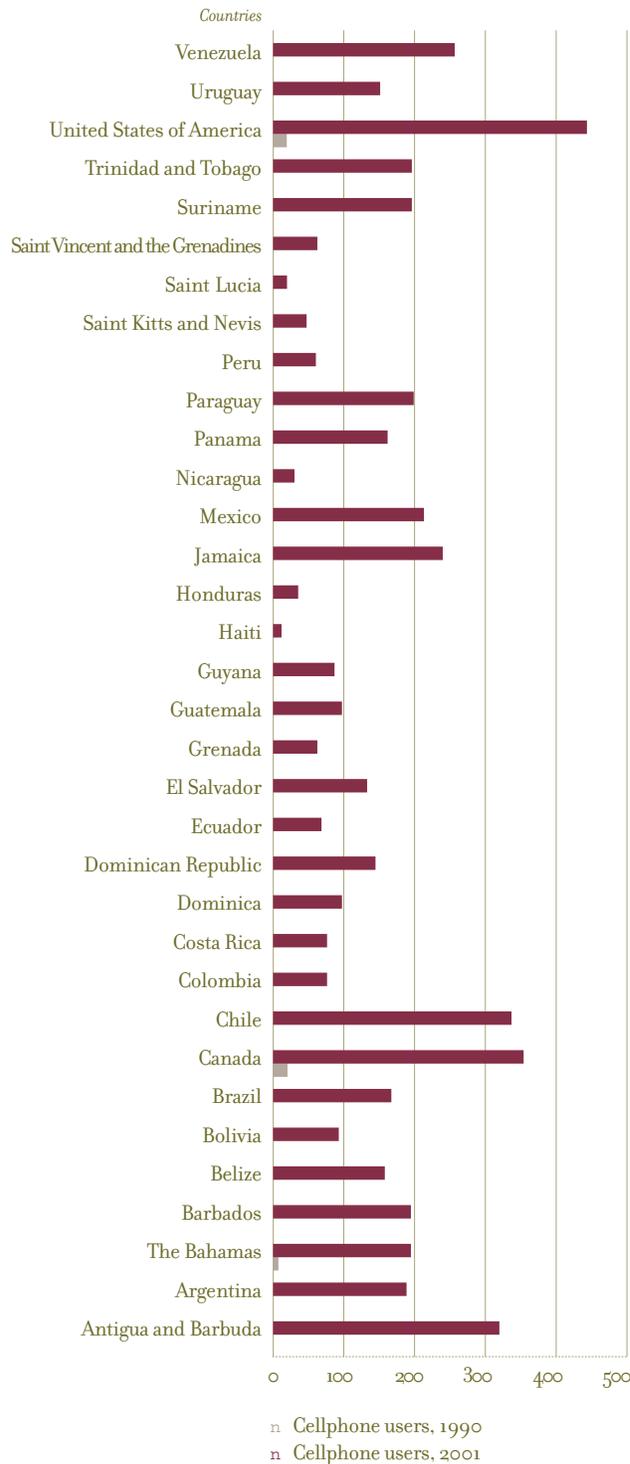
or strategies—to facilitate the integration of the Hemisphere, and provide the citizens of the Americas with opportunities to fulfill their human potential. In this context, CITEL prepared an Agenda for Connectivity in the Americas and Plan of Action of Quito that sets out principles, premises, definitions and objectives to take advantage of opportunities, and sets out procedures for the design and implementation of connectivity activities. The countries also adopted the Washington



The development of physical infrastructure is an important complementary factor for economic integration.

CELLULAR USERS

Data Source: UNDP Human Development Report 2003

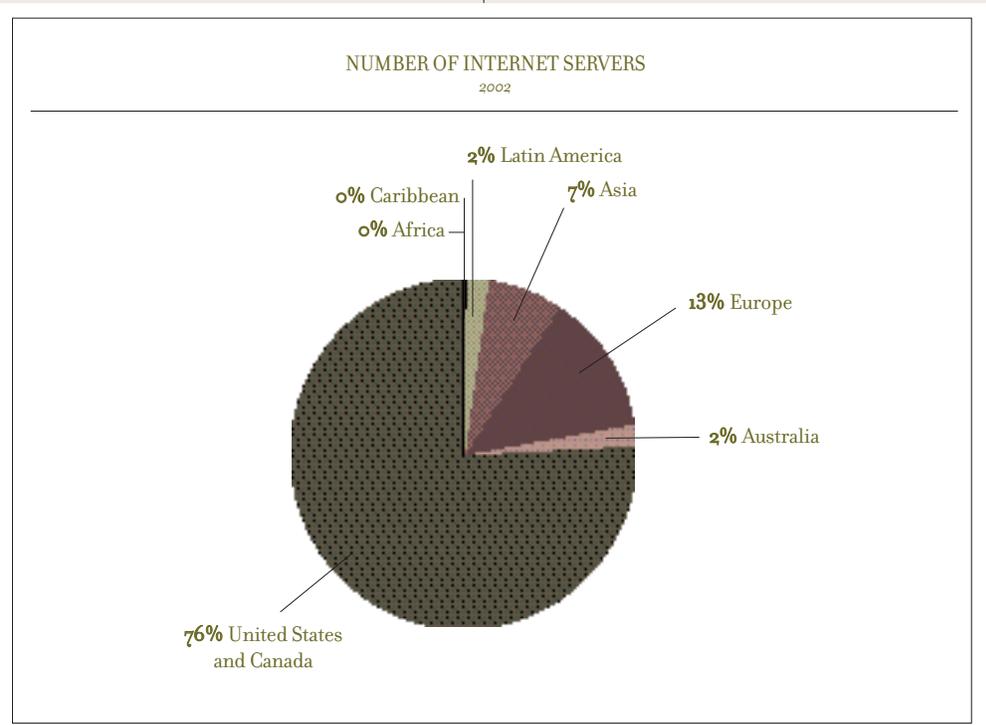


Declaration on August 16, 2002, agreeing to continue expanding CITEI's capabilities to promote the implementation of an Agenda of Connectivity for the Americas

and to encourage the provision of universal access to information and communication technologies. This is an issue that extends far beyond the ability of telecommunications authorities to implement on their own, so other regional and international organizations have been requested to join forces. Several governments have already developed national programs based in this document.

Taking into account the growing need for trained and skilled personnel to cope with the changing telecommunication environment, CITEI has been working with accredited training centers in the region, and the Centre of Excellence for the Americas of the International Telecommunication Union (ITU) in particular, to provide appropriate training programs to telecommunications professionals of in Latin America and the Caribbean. Since 2002, thirteen courses—distance learning and face to face—on telecommunications policy, regulation, management and technology have been offered. CITEI has awarded nearly 490 scholarships in the region. Collective hemispheric efforts were made more effective through innovative uses of information and communications technologies, such as distance learning. Also, a book on tele-education that includes countries' experiences and offers lessons learned was published in 2001, in an effort to incorporate new communities into the knowledge society.

Health care practice is currently undergoing a rapid transformation in the Americas. The growing availability and affordability of telecommunications-based technologies make it possible to extend access to and improve the quality of health services for a larger number of individuals. Medical resources, only available in major health-care institutions, are becoming readily accessible to all citizens. A book on Telehealth in the Americas, which recommends policies and strategies will be made available in early January 2004. This is the outcome of joint efforts of CITEI, ITU and the Pan American Health Organization (PAHO) for the benefit of the whole region.



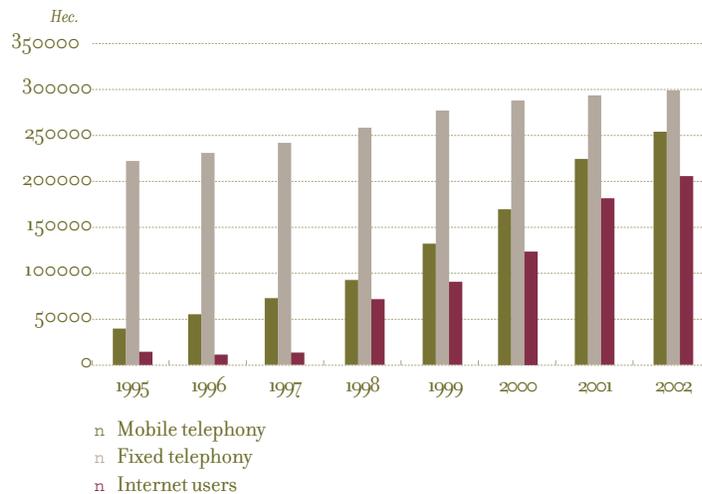
Reforms are reshaping the industrial and governmental structures of the telecommunications sector worldwide, resulting in large demands on regulators who need to protect consumers, prevent anti-competitive abuses and attain national goals such as universal access and economic productivity growth. CITEI and the ITU have begun updating the Blue Book on Telecommunication Policies for the Americas, a fundamental tool and foundation for implementing a regulatory regime able to reach the policy goal of developing a Global Information Society. Regulatory reform is needed, as 74% (data from 2002) of the countries in the Americas have privatized state-owned assets, making liberalization and competition an increasingly common feature in a variety of service markets. Regulators are faced with a growing number of regulatory challenges from interconnection, third generation mobile service licensing, broadband deployment, and the Internet. CITEI provided recommendations regarding interconnection guidelines, universal service/access, and harmonization of spectrum. The recommendation on frequency bands for third generation systems and a hemispheric database on spectrum allocation is now operational through the CITEI web site.

Technological advances and convergence of services are increasing the use of broadband via satellite worldwide, as satellite is one of the best-suited means to reach regions lacking terrestrial access. CITEI recently approved a recommendation on satellite services regulations so as to encourage the development of broadband services via satellite. Also, a web page has been developed that details the laws and rules governing the provision of satellite services and providing all the necessary information for interested parties to apply for licenses in the countries of the Americas.

To achieve economies of scale, reduce time to market and costs while assuring continued compliance with national technical regulations, CITEI has been working on a number of issues, specifically Mutual Recognition Agreements and standards coordination. A Mutual Recognition Agreement for assessing the conformity of telecommunications equipment has been developed and approved. This mechanism will facilitate trade and access to information technologies. Several countries are already participating in its phases, while others are adopting measures to implement the Mutual Recognition

WHAT IS THE STATUS OF TELECOMMUNICATIONS AND INTERNET USE IN THE AMERICAS?

Source: ITU (2002)



Agreement on conformity assessment developed by CITEI, including the adjustment of national laws, as required. Also, analysis is underway to harmonize assessment processes in the region, by preparing the Yellow Book on telecommunication equipment conformity assessment processes in the Americas. CITEI encourages the discussion of adequate standards to ensure technological compatibility and the timely introduction of new technology. Recent standards coordination documents endorsed several common standards for network access. In addition, a standards roadmap on Next Generation Networks has been approved.

The need for the rapid spread of information technology and connectivity has been endorsed by the Summit. CITEI has recognized that terrestrial digital television broadcasting offers new ways of accessing and sharing information and has approved a resolution agreeing on the adoption and implementation of a common hemispheric standard for digital terrestrial television broadcasting, which encour-

ages OAS member States to work towards the successful transition from analogue to digital terrestrial television technology as rapidly as possible.

CITEI is committed to a harmonized view of telecommunications in the region, as may be seen by the development of joint Inter-American proposals to the World Radiocommunication Conference, the World Telecommunication Development Conference, and the upcoming 2004 World Telecommunication Standardization Conference of the ITU.

CHALLENGES

Despite these successes, the Americas still has many hurdles to overcome. Governments must ensure that all available actors and forces become involved and cooperate to spur greater development and increase use of modern telecommunications and information technologies. They must also work to narrow the domestic digital divide to ensure that all citizens have access to the benefits provided through new technologies.

Transport

→ MANDATE

The Heads of State and Government endorsed the work of their Ministers of Transportation, through the Western Hemisphere Transport Initiative (WHTI), and delegated to them the responsibility of carrying out the mandates outlined in the Quebec City Plan of Action. These mandates were concentrated in the following areas: to improve the training programs for human resources in the transportation area, to ensure the environmental viability of transportation infrastructure systems, and to encourage air and maritime operators to comply with international safety conventions, regulations, codes of conduct and standards.

There exist a number of major initiatives to integrate the transportation field, such as the Initiative for the Integration of the Regional Infrastructure in South America (IIRSA) (www.iirsa.org) and the Puebla-Panama Plan (www.iadb.org/ppp), which consists of a program to develop infrastructure, housing and micro-credits in Central America and southern Mexico. Countries and international organizations alike are making major efforts to support these initiatives. For instance, from June 2001 to December 2002, the Andean Development Corporation (CAF) approved nine new infrastructure projects for integration, worth a total of US\$ 517.8 million (Report of the Joint Working Group, XXIXth Meeting of the SIRG, June 2003).

The WHTI facilitates cooperation, convergence, and information exchange among sub-regional groups and multilateral organizations. Its main purpose is to ensure the development of an integrated transportation network in the Western Hemisphere that is adequate, safe, secure, efficient and respectful of the environment. WHTI has a web site (www.transport-americas.org) that is managed by the Summits of the Americas Secretariat. At the most recent meeting of Transportation Ministers held in May 2003



in Ixtapa, Mexico, ministers carried out an in-depth review of four issues importance to transportation in the region: safety and security, exploring conventional and new proposals for financing, the urgent need to safeguard ecosystems, and the strategic importance of multimodal transportation networks in the process of hemispheric integration (Ministerial Declaration, Ixtapa-Zihuatanejo, Mexico, May 2003).

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PROGRESS

The IDB, CAF and Central American Bank for Economic Integration (CABEL) have granted medium and long-term loans to governments, public entities and private corporations to support infrastructure investment programs and projects for highways and other modes of transport such as pipelines, ports, rail and waterways. By August 31, 2002, CAF had approved a total of US\$ 1.833 billion for the transport sector, of which US\$ 923 million was earmarked for projects to integrate the transportation infrastructure among member countries. CABEL approved two loans for the construction and rehabilitation of roads in El Salvador and Honduras, in the amount of US\$ 135 million and US\$ 22.8 million respectively. It also loaned Costa Rica US\$ 60 million to finance part of the Comprehensive Southern Coast Highway Program (Reports of the Joint Working Group to the SIRG, November 2002 and June 2003).



The following initiatives related to transportation initiative priorities should be highlighted:

- ECLAC has presented an Action Plan for the Integration of Transportation in the Americas (<http://www.transport-americas.org/Priority1-SP.htm>) that includes three main components: institutional cooperation, trade interchange routes and a knowledge network. ECLAC identified several priorities for developing concrete projects: harmonization of road transport standards, regulations and practices; highway safety and security; and transport of hazardous materials.

- The Unit for Sustainable Development and Environment of the OAS has prepared a working document entitled "Mechanisms for Mutual Assistance in Case of Damage and Vulnerability Reduction of Transportation Infrastructure in Central America", which is available to all countries and organizations and contains concrete recommendations for action. The OAS has also prepared two additional publications on managing natural hazards: "General Study on the Vulnerability of Road Segments to Natural Hazards of the Pan American Highway and its Complementary Corridors in Central America" and "Course Manual on the Use of Information on Natural Hazards when Formulating and Evaluating Investment Projects in the Transportation Sector".
- The International Civil Aviation Organization (ICAO) has established a technical cooperation program in support of countries that require assistance developing and implementing projects within the entire gamut of air transport activities, including operational safety and security. The ICAO also has a new financial instrument known as the International Financing Facility for Aviation Safety (IFFAS). It was designed to provide financing for projects related to operational safety, in particular for States that cannot obtain the necessary financial resources from traditional sources.
- Multilateral working groups have been created to consider issues such as maritime environmental pollution, data banks, aviation safety and security, and the transport of hazardous materials, with the objective of exchanging information and improving individual and regional systems. Through its PROCORREDOR program, the OAS has disseminated technical information and conducted workshops on the creation of trade corridors to stimulate the economies of member countries.

CHALLENGES

The relative importance of integration infrastructure has increased due to the sub-regional integration processes and the growth

in sub-regional trade. However, very little progress has been made in this regard, except when the integration infrastructure coincided with priority domestic infrastructures. This explains the origins of initiatives such as the IIRSA, in South America, and the Puebla-Panama Plan in Central America. In this context, it would be important to strengthen the role of the Western Hemisphere Transportation Initiative as a forum for promoting greater integration of transport systems, finding the necessary synergies to carry out concrete projects and building a continental transport system. Such a system must feature infrastructures and types of integration that, in addition to facilitating trade exchanges and international tourism,

are safe, efficient and environmentally sustainable. The main obstacle to reaching these objectives is the lack of economic and financial resources to develop transportation supply fast enough to match the growth in trade and in security procedures.

Undoubtedly, the main challenge is to achieve an integrated infrastructure by building multimodal transportation networks. With this in mind, a number of participants at the most recent ministerial meeting suggested the creation of an Americas infrastructure trust fund. Such a fund would accelerate the investment process, encourage direct investment from the private sector, and limit risk to investors and lending agencies.

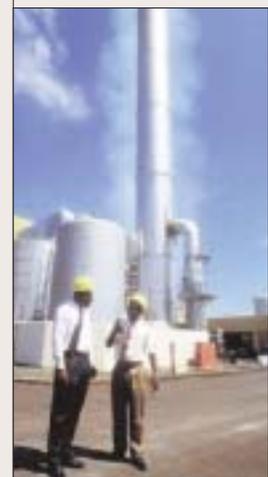
The Hemispheric Energy Initiative

The Third Summit of the Americas called for governments to support and endorse the Hemispheric Energy Initiative launched in the Santiago Plan of Action, reaffirming its role as the primary vehicle for the promotion and practice of policies to advance the regional integration of energy through regulatory reform and trade liberalization.

Energy remains a controversial issue for governments in the Americas, with energy crises, shortages and related civil protests affecting several countries. Various evolutionary changes have transpired in the energy sector, with previously state-owned entities in the Caribbean and Latin America and vertically integrated companies in Canada and the United States which have undergone major restructuring during the past five years. Many of these changes in ownership have been accompanied by new government policies, particularly in the creation of regulatory frameworks to oversee the growth of new markets. (Averch, Harvey, "Regulatory Framework since 1990," paper delivered at the Second Hemispheric Con-

ference of Hemispheric Energy Regulators, Florida, March 7, 2002.

Moreover, the Second Hemispheric Conference of Energy Regulators was held as part of the Summit of the Americas on March 6 to 8, 2002 in Miami, Florida, under the auspices of the Hemispheric Energy Initiative (HEI). Bringing together public and private sector representatives from 21 countries, discussion included issues of regulatory reform and the liberalization of goods and services related to energy. They further addressed regional cooperative strategies, energy integration, regulatory framework compatibility and information sharing.



**Mini-hydro plants—
Pelton generators
in the Bahamas**

SOURCE: IDB

PROGRESS

Since the Quebec City Summit of the Americas, 8 countries—Argentina, Brazil, Chile, Guatemala, Nicaragua, Mexico, Panama and Peru—have created regulatory agencies to oversee the development of new markets, new entrants, and reformed utility companies. As a consequence of such deregulation, investment opportunities have opened up in the energy sector, demonstrating that effective and harmonized regulation encourages investment.

In 2001, energy consumption in the Hemisphere was 22,403.6 Boe (barrels of oil equivalent). These figures include oil, natural gas, coal, and electricity. Compared to data from 1999, this represents an increase of 1.64% for the region. (OLADE, Energy Economic Information System 2002)

SUCCESS STORY

Despite the many challenges facing countries, a good example of a successful national program is the National Commission for Energy Conservation (CONAE) of Mexico. With a 2001 budget of \$6.3 million, CONAE succeeded in saving an estimated \$360 million worth of energy, the equivalent of 57 times its budget. (ECLAC, Renewable energy and energy efficiency in Latin America and the Caribbean: constraints and prospects, October 2003)

CHALLENGES

The Americas have made little progress in the areas of economic reform and capacity building in the energy sector. Energy efficiency and renewable energy have yet to be given more prominent positions in the energy policies of Latin America. According to ECLAC, the push towards privatization in the 1990s—while an important financial component of the reform process—has been emphasized over other critical economic and political factors.

