

Telecommunications  
Development in  
Ecuador

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## Chapter VII

### Ecuador

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Telecommunications in Ecuador has been almost entirely a state-provided service, such as it was, since the 19th century. International connections were the exception, and these were ultimately nationalized. In the 1990s Ecuador is another country moving toward privatization, motivated by the need to expand and improve its system.

#### 0.1 Background

Ecuador sits astride the Andes mountains, which gives it three very different geographical regions despite being one of the smaller Latin American countries in terms of area (about 283,000 square kilometers). The tropical coast (costa) is home to about 49 percent of the country's 10.7 millions inhabitants (July 1994

estimate) while the mountain region (sierra) has 46 percent of the population. The tropical rain forest of the of the Amazon basin (Oriente) covers almost half of the area but has only 4.9 percent of the population. The Galapagos Islands, with 0.1 percent of the total population, are also part of Ecuador. Under a law of 26 March 1987, there are 21 provinces divided into 162 *cantones*.

Guayaquil, the principal port, is the largest city with 1.6 million inhabitants; Quito, in the sierra, is the capital and second largest city with 1.2 million. Long one of the poorest Latin American countries, petroleum discoveries in the Oriente in the 1970s significantly affected the economy. It is the principal export, having replacing bananas. Despite rapid growth population, per capita income increased substantially, creating an urban middle class. The 1980s were more somber, however. The government significantly increased its involvement in the economy, generally running huge deficits. The situation was exacerbated by the abrupt halving of oil prices in early 1986 and a March 1987 earthquake that damaged the pipeline delivering oil for export. Inflation reached triple digits and per capita income fell. Agriculture still employs over a third of the labor force (1994).

During the 20th century there has been a succession of military and civilian governments. In 1979 the junta allowed elections and a new constitution

was adopted. All subsequent governments have been elected. The 1979 constitution mandates the direct election of the president, who serves a 4-year term without the possibility of re-election, and a unicameral legislature elected every 2 years. There are many political parties; no single one has ever held a majority.

## 1 History

In 1871 the government granted a concession to All American Cable and Radio to provide international telegraphy services using its submarine cable. The cable ran along the west coast of South America linking Baltos (Panama) with Valparaiso (Chile) through stations in Buena Ventura (Colombia), Salinas (Ecuador), and Callao (Peru). Salinas, a beach resort, is about 100 kilometers west of Guayaquil.

The first domestic telegraphic message in Ecuador was transmitted on 9 July 1884 on a line between Quito and Guayaquil. A national organization to regulate telecommunications, the Direccion de Telegrafos, was created in the 1880s. The country's first central telephone exchange was installed in Quito in 1900 using a semiautomatic system.

Quito and Guayaquil were connected by wireless telegraph in 1920. By 1934 there were 7000 kilometers of telegraph and telephone lines, 167 telegraph offices, 114 telephone offices, and 19 wireless stations collectively providing communications links to the principal towns and cities of the costa and sierra.

Radio Internacional del Ecuador was established in 1943 as an independent state organization for international telegraph and telephone services, as well as domestic long-distance telephone service. Until then these had been monopolized by All American Cable and Radio. The new company operated throughout the country.

Telecom authorities moved to begin replacing the manual telephone system with automatic switches in 1945 when the national government signed a contract with Ericsson for central exchanges in Quito and Guayaquil. Also in 1945, ETAPA, the telco owned by the municipality of Cuenca, contracted with Ericsson for its AGF switch. Subsequently, on 15 July 1949, ETAPA inaugurated the first automatic central urban telephone network in the country. The system had an initial capacity of 500 lines and 150 subscribers.

Empresa de Telefonos de Quito (ETQ) was created in 1949. It was placed in charge of installing and operating automatic service for the city, thus taking over responsibility for administering the equipment installed under the 1943

contract. In 1950 automatic service began in Quito using the Ericsson AGT switch in the Mariscal Sucre central. Initial capacity was 3000 lines and 1000 subscribers were served. In 1953 the Guayaquil Telephone Company (ETG) was created with a technical and an administrative framework similar to ETQ's. In 1955, also using the AGT switch, EGT began automatic service for 3000 lines and 2300 subscribers.

*OXFORD EDITOR: IT IS NOT KNOWN IF THERE WAS 1 OR MORE THAN 1 SWITCH SO THE PRECEDING HAS BEEN CAREFULLY WORDED TO FINESSE THAT POINT. DO NOT REWORD!*

From the beginning of telecommunications in the country, both the planning and construction of networks were done under the direct administration of technical managers. Government departments were created to develop specific projects. Projects, and the skills required for installation, were determined on the basis of a population census of an area.

## 2 Service and Organizational Changes, 1957-71

Empresa de Radio Telegrafos y Telefonos del Ecuador (ERTTE) was created in

1958 by merging the Direccion de Telegrafos and Radio Internacional del Ecuador. The main purpose of the new company was to update the international communications system. The national government in 1959 contracted British Marconi for a 48-channel VHF link between Quito and Guayaquil. Later, VHF links were used to connect the rest of the country's cities. International telephone circuits were established using the HFBL 4-channel system.

In the 1960s the Quito and Guayaquil telephone companies began to extend their networks, initially into surrounding Pichincha (ETQ) and Guayas (ETG) provinces. ETG also moved into neighboring Rios province.

Automated long distance service between Quito and Guayaquil was begun in 1963 under a contract among ERTTE, ETQ, and ETG. In 1967 the Quito and Guayaquil telcos installed interurban transit exchanges. Utilizing these facilities, ETQ automated connections between Quito and Machachi, about 50 kilometers south on the main road to Guayaquil, and ETG automated connections between Guayaquil and Salinas.

ERTTE restructured itself in 1963 and changed its name to Empresa Nacional de Telecomunicaciones (ENTEL). A national telecom advisory board was established and made responsible for coordinating the telecom activities of the three state companies (ENTEL, ETQ, and ETG) and the various municipal

companies. Raytheon, a US-based company, was contracted to supply the country's first microwave system, with a capacity of 600 telephone channels plus a TV channel, connecting Quito and Guayaquil. The system was installed along the coastal trunk route, an important communications corridor for the country. It went on line in 1968. In March 1969 direct dialing became possible between Quito, Guayaquil, and other population centers. Until then, other population centers were connected to each other only through Quito or Guayaquil in a hub-and-spoke network.

All American Cable and Radio was nationalized in 1970 and renamed Cables y Radio del Estado. Its principal function remained the operation of telex and the national and international public telegraph systems. The same year, four international telephone channels via satellite were initiated from the ground station at Choconta (Colombia).

In February 1971 the government combined ENTEL, ETQ, ETG, and Cables y Radio del Estado into two regional companies under the Ministry of Public Works and Communications. The regional companies were Telecomunicaciones del Norte, with jurisdiction over Esmeraldas, Carchi, Imbaburaa, Pichincha (Quito), Cotopaxi, Tungurahua, Chimborazo, Bolivar, Napo, and Pastaza provinces; and Telecomunicaciones del Sur, covering Manabi,

Los Rios, Guayas (Guayaquil), El Oro, Canar, Loja, Morona Santiago, and Zamora Chinchipe provinces, as well as Azuay outside the city of Cuenca. (ETAPA, Cuenca's provider remained autonomous.)

To take advantage of joining INTELSAT in 1971, the two regional companies set out to renovate and expand the national and international networks. They solicited bids for microwave trunk networks, telex-gentex networks, and a satellite ground station.

### 3 IETEL, 1972-91

In October 1972 the national government created the Instituto Ecuatoriano de Telecomunicaciones (IETEL). The two regional companies were merged into this new body which, like its predecessors, was under the Ministry of Public Works and Communications. Thus, for the first time, a single government entity was responsible for regulating, planning, and operating all of the country's telecommunications (except in Cuenca). However, in part reflecting the historical development of the system, while IETEL had a central organization responsible for short- and long-term project planning and implementation for the entire

country, operations were conducted by two regional units. Region 1 (IETEL R1) had jurisdiction over all services in the mountains and western provinces, while Region 2 covered the coast and inland provinces. These were essentially the previous regional companies, which in turn had been centered on ETQ and ETG.

During the late 1970s and early 80s the economy's general malaise and huge level of foreign debt meant little was done to expand or upgrade the system. International telephone service was upgraded in July 1974 when calls became semi-automatic. Later, first incoming and then the outgoing calls were fully automated. With a loan from the Interamerican Development Bank (IDB), a project was started in 1982 to provide service to 460 rural towns.

The wiring necessary for the installation of primary (backbone) and secondary networks and international connections was carried out by domestic companies awarded contracts through bidding. These contractors followed technical specifications issued by IETEL, which had a department to inspect and accept projects. Digital centrals were installed in Quito and Guayaquil in 1987 and, in 1991, Ecuador became the first Latin American country to have a digital satellite ground station.

In 1990 there were 537,895 telephone lines installed, which was about 18 per 100 inhabitants. Service was 75 percent automated on a national level in

1991, with 156 cities connected to domestic direct dialing using 10,486 long-distance circuits.

In 1991 IETEL R1 had a primary capacity of 269,350 lines, of which 72,250 (27 percent) were digital. Some of these were installed by private companies under the technical supervision of IETEL. There were plans to add 47,000 lines in Region 1 during 1991, a 17 percent increase. Of these, 22,000 digital and 8600 analog lines were for Quito and adjoining areas of Pichincha province. For 1992 IETEL was committed to 57,500 lines, 40,500 of them under contract within the various areas of Region 1. Region 1 also was installing cables of greater capacity to replace existing cables in order to alleviate saturation of channels for inter-central exchange connections. Some of this new cable was fiber optic, which helped pave the way for digital transmission.

The major cities have grown considerably since the 1970s, largely because of migration from rural areas. Municipal by-laws were amended to allow construction of low-income housing on the outskirts of cities, providing only basic services such as water, light, and sewer. At the same time, to accommodate a growing middle class, new areas have developed that provide housing with full facilities, including telephone service. In these up-scale areas, the developers have at their own expense installed the cabling and other parts of the secondary

telephone network, following technical norms and regulations issued by IETEL. In fact, housing developments and buildings that will have over 10 subscribers were obligated to build their own telephone connections and submit it to the region's inspection department.

#### 4 EMETEL, 1992-94

Yet another restructuring of the telecom sector came in August 1992 when Congress passed a Special Telecommunications Law. Basic telecom services were maintained as an exclusive state monopoly, to be carried out by the newly created state-owned company Empresa Estatal de Telecomunicaciones (EMETEL).

EMETEL provides local and national and international long-distance telephone services in the country except in Ecuador's third largest city, Cuenca, where service continues to be provided by a local municipal operator, ETAPA. With this exception, EMETEL has a monopoly on all basic telephone and telegraph services, both national and international. In value-added services such as data transmission and mobile telecommunications services, EMETEL competes

with the private sector.

Services such as cellular telephony, mobile radio, satellite communications, long distance, and paging may be operated by the private sector under concession arrangements regulated by the Superintendencia de Telecomunicaciones. Limited privatization of satellite, long distance, and mobile telephone services has already begun.

#### 4.1 Regulation

The 1992 law established the Superintendencia de Telecomunicaciones as the sector's regulator, thereby separating operating and regulatory functions. (EMETEL's predecessor, IETEL, had been responsible for both.) Subject to oversight by the Congress, the office is responsible for the administration, regulation, and control of the entire telecom sector, including spectrum management, assignment of frequencies, approval of telephone tariffs, and authorization of final and carrier telecom services. In addition, the Superintendencia represents the Government of Ecuador before the International Telecommunications Union (ITU) and other international bodies (although EMETEL is considered the "signatory" to INTELSAT). The office is headed by a

*superintendente* appointed by the president for an indefinite term.

The duties of the Superintendencia are expected to change as reforms to the 1992 law are passed and privatization activities are initiated. Indeed, one argument in favor of modifying the 1992 law is that it provides too much power to one person, especially giving the Superintendencia's authority to approve concessions and grant frequencies without any type of oversight.

## 5 Level and Nature of Service in the Early 1990s

Government support for the telecommunications sector in the early 1990s is often described as passive and highly politicized. Private-sector users complain of the lack of strong governmental support for expansion and a weighty bureaucracy. Some companies have been forced to acquire independent systems in order to be able to use technologies unavailable from EMETEL. As a result of lack of government investment, an informal telecom sector has been expanding rapidly.

At the end of 1994 Ecuador's telecom network consisted of some 624,000 telephone lines, a penetration rate of just 5.6 percent. The average waiting period

for a telephone line was 6 years, with over 160,000 customers on the waiting list. Demand is estimated at 2.2 million lines by 2000, and 2.7 million by 2010.

The current switching system was two-thirds digitized, with outside plant analog but the transmission system 90 percent digital. Only half of users had international direct dialing. Nearly 76 percent of non-governmental lines were residential, 14 percent were for small and medium business, and 11 percent for large industry. Through agreements with EMETEL, US carriers providing telephone services to the United State include AT&T, Sprint, MCI, and IDB.

## 5.1 Domestic Long Distance

The Superintendencia issued regulations governing domestic long distance systems on 14 April 1994. On the basis of these regulations, he then awarded concessions to six firms: Telemobil, Ramcomdes, Mottcashire, Eduardo Granda, Comovec and Brunaci. These companies were expected to begin operations sometime in 1995 but did not. EMETEL argued that the government exclusively assigned domestic long distance to EMETEL and it would not authorize any connections to its network under the current circumstances. As part of EMETEL's privatization, expected by the end of 1996, interconnection fees will be

established and the new firms will be able to provide service.

## 5.2 Cellular Service

The Superintendencia issued regulations governing cellular telephone services in April 1993. Bids were submitted in May and the two top bidders, CONECEL and OTECEL, were awarded the right to negotiate contracts. CONECEL (Porta Cellular) started operations on the A band in December 1993 with Northern Telecom equipment, while OTECEL (Cellular Power) started operations on the B band in August 1994 with Ericsson equipment. Cellular telephony thus is the first case of private-sector provision of domestic telecom services in Ecuador.

Original estimates were for 10,000 subscribers by year-end 1994. This was easily surpassed and, as of March 1995, there 27,870. Both CONECEL and OTECEL have domestic and international shareholders.

## 5.3 Public Telephones

Coin-operated telephones (*daruma*) developed in Brazil have been extensively installed in urban areas where there are few other phones. The phones allow

long-distance calls. There were approximately 2500 of them in the country at the end of 1994, but only 20 percent were operational. Most accept only coins, although magnetic card systems have been installed in several areas.

A call for bids was issued in mid May 1995 by EMETEL and CONAM (the state modernization committee) offering a concession for a new public telephone system using either the coin or card method. Two independent companies each will install and operate 5000 public telephones in any part of the country. There thus could be direct competition between the companies. The concession is for an initial operating period of 10 years. Tenders initially were expected by mid July 1995, with a final decision by September 1995. However, the Superintendencia is calling the tender illegal because it is based on the Modernization Law, which he claims does not have precedence over the powers accorded him by the 1992 Special Telecommunications Law.

#### 5.4 Rural Communications

Although about half the population live in rural areas, they had only about a tenth of the telephone lines in 1991. IETEL, superseded by EMETEL, obtained funds from two foreign governments to promote expansion of rural telecom systems. Spain provided US\$15 million and Canada, US\$5 million. The Canadian money was a grant, although IETEL was committed to "repaying" it by supporting a social service foundation in rural areas.

The objective of the project was to provide rural telephone service in locations with easy access -- such as police stations, churches, health centers, and schools -- generally using radio communications. In areas where capacity will be limited, preference was given community organizations and private subscribers such as banks, pharmacies, and shopping centers. The system is connected to the main network, allowing calls between subscribers anywhere in the country and internationally. The foreign money was only for transmission equipment; switches were acquired under other financing. So that the system will be especially reliable and not be burdened with maintenance, the equipment is largely digital and computerized. Installation of more than 2000 public telephone also was planned. The project was still underway in mid 1996. When complete,

all towns with over 500 inhabitants will have telephone service.

## 5.5 Isolated Rural Areas

The Amazonian region is primarily a rain forest with scattered populations engaged in agriculture, as well as the country's main petroleum fields. One city, Nambija, has attracted many colonizers, including gold diggers, due to its abundant mineral resources. Its population has grown substantially in spite of the lack of basic facilities.

As part of providing reliable high-quality telecom services in isolated rural areas located in the western region of the country, there are plans to introduce a domestic satellite system providing telephone, telegraph, facsimile, television, and low-speed data transmission. The network will have a hub-and-spoke configuration centered on Quito, with 11 remote stations. INTELSAT will be used until the Andean satellite project is completed, at which time the Simon Bolivar satellite will be used. There will be 81 circuits. In Nambija, Zumba, and Analuza, where estimated demand is at a medium level, 24, 12, and 12 circuits are planned. The other 8 settlements are considered to have a relatively low demand and will get 3 or 6 circuits, with emphasis on public phones. Implementation of

the plan is underway, but as of mid 1996 it was not clear when it would be complete.

Areas near the borders with Peru and Colombia are provided services through high frequency radio channels that have low quality and are not entirely reliable.

## 5.6 Satellite Communications

Ecuador joined INTELSAT in 1971. Mitsubishi put up a ground station in Conocoto, a suburb of Quito, which went on line in 1972. With initial capacity of 36 channels and connections to Panama and Argentina, the station was upgraded in 1975, increasing the number of circuits to 53 lines and making later expansions easier. A station was later built in Guayaquil. Both are now digital. In 1991 the ground stations had 531 circuits, 70 percent of which were in use. Subsequently, new telephone circuit were opened giving EMETEL 1000 international circuits at earth stations in Quito and Guayaquil. Ecuador also is a member of INMARSAT.

There are five satellites accessible from Ecuador: INTELSAT, Panamsat, Anck (US-based), Nawelsat (Argentina), and Solidaridad (Mexico). EMETEL operates exclusively through INTELSAT for all public services (telephone, data

transmission, TV). The potential market is as high as 400 VSAT stations, 50 SCPC domestic stations, and 50 SCPC international stations.

In May 1994, the Superintendencia de Telecomunicaciones issued regulations governing use of satellite systems. He granted licenses to three private companies: IMPSATEL del Ecuador SA, AMERICATEL SA, and the cellular telephone operator CONECELL SA. Their systems will have teleports in Quito and Guayaquil and VSAT stations are being installed in many other cities. The earth stations in Quito and Guayaquil initially will operate with INTELSAT or PANAMSAT satellites, but are capable of operating with other satellites. Contracts are usually for 5-year periods, renewable prior to expiration. Services will include domestic and international data transmission, videoconferencing and point-to-point teleconferencing, electronic mail, and other business services.

Ecuador had at least 20 private communications networks in 1994 operating through different satellite links, including a number of banks and petroleum companies using VSATs under contract with EMETEL or the Superintendencia. Vitacom (Canada), Mitsubishi and Selena (Italy) have provided the VSAT equipment. The networks vary in size. Banco del Pacifico operates the largest, with four earth stations in Ecuador and one each in Miami and Panama.

Banco del Pacifico is currently (October 1995) the only entity providing Internet service to businesses and individuals, using its Ecuonet system. However, there are complaints that the system goes down several hours a day when the bank is transmitting its own data and that the service is too expensive. Other Internet access providers will probably emerge in 1996 because of the large, unsatisfied demand. Fundacyt, a non-profit organization funded with a US\$35 million loan from the Interamerican Development Bank, is charged with expanding and promoting scientific and technological development in Ecuador. It has been seeking ways of offering Internet and satellite links to universities and students.

In 1995 EMETEL signed a US\$3.5 million contract with NEC for installation of a new earth station in Quito. A US\$13 million contract was also signed with US-based Satellite Transmission Systems to install a domestic satellite system that includes one master station and stations in 44 rural towns.

Ecuador and the four other members of the Andean Pact have been working together to upgrade their international telecommunications satellite capacity. Under the project, Bolivia, Colombia, Ecuador, Peru, and Venezuela will lease additional INTELSAT transponders. Ecuador will rent two 36-Mhz transponders for 10 years for domestic and international traffic. Andean Pact

members have also discussed launching their own satellite, a project called "Simon Bolivar."

### 5.7 Telex

Radio Internacional del Ecuador introduced telex in 1957, replacing radiotelegraphic service for both international and national circuits between Quito and Guayaquil. As part of a general move to upgrade the country's telecommunications in the early 1970s, in 1974 the task of installing telex-gentex service was given to Siemens. Central nodes were set up in Quito and Guayaquil and an international switch was installed in Quito for automatic international communications. Around then, the network had 945 subscriber lines, of which 700 were along the Quito-Guayaquil corridor. In 1994 there were 3600 subscriber lines and almost 3 million international telex communications. Because of the pending privatization of EMETEL, there are no expansion plans. Subscribers may own their own machines or rent from EMETEL.

### 5.8 Cable TV

Three companies provide cable television services. TV Cable, with 50,000 subscribers, was formed by the 1995 merger of Satelcom (Quito) and Telesat (Guayaquil), which are the only licensed cable operators. Univisa started operations in October 1994 using satellite technology. Owned by Ecuavisa, which also owns a TV station, it provides eight channels to 1500 subscribers in three major cities. Omnivision began operations in January 1995 using a combination of parabolic antennas and satellite dishes to receive signals that are redistributed by cable. It has 200 subscribers.

## 6 The 1995 Telecom Bill and Partial Privatization

The future and legal structure of the whole sector will again change significantly as a new telecommunications bill, approved on 8 August 1995, shapes the industry. Passed against strong opposition from labor unions and other politically important groups, it sets out the steps to privatize EMETEL.<sup>1</sup>

First, EMETEL will be changed into a limited-liability corporation through creation of a joint stock company, EMETEL SA, to which the personnel, assets, and obligations of EMETEL are transferred. Initially, 100 percent of the

equity will belong to the State. This was done in late 1995.

Two subsidiaries will be created, EMETEL del Norte SA, headquartered in Quito, and EMETEL del Sur SA, based in Guayaquil. They will provide local telephone services in the sierra and costa regions, respectively, under exclusive concessions with an initial period of 5 years and will compete in domestic and international long distance. Rates are to be based on actual operating costs. The companies are obliged to submit plans for rural coverage but costs are to be subsidized directly by the government if need be.

An international auction among pre-qualified and experienced operators will be held to sell 35 percent interests in each of the two companies. Employees will receive 5 percent of each company. The remaining 60 percent will remain in state hands, reserved for possible future sale. Some observers believe it will require 12 to 15 months after December 1995 to complete the partial privatization.

Although no study has been conducted of the two operating companies' market value, published estimates range from US\$600 million to US\$2200 million. In the summer of 1994 the government hired consultants, lead by GERASIN (which is based in Venezuela), to help set privatization guidelines and values.

ETAPA will remain separate, still owned by the municipality of Cuenca,

which means there actually will be three local operating companies. However, some observers believe ETAPA will have difficulty surviving in a competitive environment.

Other value-added services including cable TV and satellite, are to be awarded on the basis of open competition. The Consejo Nacional de Telecomunicaciones (CONATEL) will be created to be in charge of awarding all concessions for the sector, taking these functions over from the Superintendencia de Telecomunicaciones. CONATEL's board is to include representatives of the president, the military, and the Escuela de Ingenieros (School of Engineers). The head of the Superintendencia would have a voice but not vote in CONATEL's proceedings. The Superintendencia will otherwise remain as the controlling agency.

## 6.1 Complications and Critics

A complicating factor in privatization is Article 46 of the Constitution. It reserves "strategic sectors," including telecommunications, to the state; delegation of such services to the private sector is permissible only in exceptional circumstances. A debate is underway in Congress to liberalize the clause, but in any case most

observers believe a sale of EMETEL can be justified as an appropriate exception because of the poor quality of service the company has provided and the limited funds the state has to modernize and upgrade the system. Still, if the constitution is not amended, opponents of telecommunications privatization might use Article 46 to try to prevent transfer of control of EMETEL to the private sector.

Some critics of the 1995 law argue that EMETEL should not be divided into two companies because that decreases the overall market value of the assets. The critics claim that potential purchasers will have less interest in a divided market that is small by international standards. They also say that such a division reinforces the already strong regionalism present in Ecuador, and creates problems of coordination. Additionally, it is argued that, with two local operators, businesses with offices in both regions would face higher service costs.

In May 1994 CONAM (the State Modernization Committee) asked for bids for legal, financial, regulatory, and technical consulting services related to privatization of the sector. A consultant was tentatively selected in mid 1995 and CONAM is awaiting approval from the World Bank, which is providing funding. Nevertheless some experts argue that until the new telecommunications reform bill is approved by Congress, the consulting contract should not be awarded. Others say the same consultants should have been contracted to provide advice on

drafting the law, instead of having to work around it.

## 7 Conclusion

Telecom service in Ecuador's rural areas has improved since the late 1980s but remain very inadequate. EMETEL estimates basic services are now available to around 80 percent of the country but, due to the dispersion of the rural population, teledensity in rural areas is below 1 line per 100 people. Service in Quito is considered fair by Latin American standards, although overall service (repair, installation, completion rates, and so on) is poor. Service in Guayaquil has traditionally been much worse than in Quito. It is estimated that as of year-end 1994, EMETEL had a completion rate of 44 percent for international calls and 40 percent for local and domestic long distance calls. Local and domestic long distance service charges are extremely low, being subsidized by high international rates. Rebalancing the rate structure is expected during the latter part of the 1990s, making it more in line with international standards.

A partial privatization of EMETEL, the basic telephone services provider, is expected by the end of 1996 because the momentum is there. A suitable overall

legal framework has been put in place (although not without controversy) and the winner of the May 1996 presidential election was Jamie Nebot, a long-time supporter of free markets. >> *CONFIRM he was elected* <<. Areas such as telex, satellite communications, public telephony, TV, radio, cable television, and cellular telephone systems have been, or are soon to be, privatized. Thus the Ecuadorian telecommunications sector is transforming itself from a group of state-owned companies into private or semi-private enterprises. The process has been slow, but it is sure to be completed.

#### ENDNOTES

1. The State Modernization Committee, CONAM, the government entity in charge of the overall privatization process, has argued that under the terms of the Modernization Law approved in December 1993, concessions for basic telephone services already can be awarded to private firms without the need for the explicit permission granted by another special telecommunications law.