



Introduction

Political instability in Ecuador has led to a lack of continuity in national development plans in the information and communications technology (ICT) sector. There have been several initiatives that have been cut off or that have not even been implemented.

The effects of this instability include the non-fulfillment of plans for the expansion of the fixed telephony network, the lack of supervision and control over the installation of public telephony in rural areas, the accumulated debt of telecommunications operators owed to the Telecommunications Development Fund (FODETEL), and the weak enforcement of programmes such as the roll-out of telecentres.

Nevertheless, there have also been some advances and positive initiatives in the country. The dramatic reduction of the cost of internet access and the incorporation into the new constitution of the right to access ICTs are signs of progress.

Physical access to technology

The rate of access to ICTs in Ecuador is one of the lowest in the region. According to data from the National Council of Telecommunications (CONATEL), as of August 2008, the country had a fixed-line telephone penetration of 13.39%. However, the percentage of mobile subscribers was 78.64%. This is a phenomenon that is repeated in many countries in the region, where cellular telephony has met the needs left unfulfilled by the scant coverage of fixed-line telephony.

On the other hand, according to the same source, internet access has a penetration of only 2.2%, while broadband penetration is only 0.7% – amongst the lowest in South America.

There are still a large number of subscribers who connect to the internet via dial-up access, although this is on a downward trend. Most people access the internet using asymmetric digital subscriber line (ADSL) technology. Other technologies that are beginning to emerge are coaxial cable television subscription networks and wireless access using cellular networks.

The rate of electrification in Ecuador is over 90%, so access to electricity infrastructure in itself is not a serious problem. However, there is evidence of a wide gap between urban and rural areas when it comes to ICTs. Access to fixed telephony and internet is concentrated mainly in large cities.

The Telecommunications Development Fund (FODETEL), which is responsible for promoting access to connectivity in rural areas, has not been able to fully implement its work

because of a lack of available funds (money is still owed by telecommunications operators). Additionally, several projects involving the installation of telecentres have been delayed. The largest project, called PROMEC, was finally shut down this year because the operator responsible was unable to install the 1,120 telecentres it had committed to establishing.

Affordability of technology

Ecuador has amongst the most expensive internet access in the region, with prices last year which doubled and even tripled that of other countries. The response from operators was that the high cost was mainly due to the cost of international connectivity through the Pan-American cable, whose capacity was saturated. Other fibre-optic systems were available through Colombia and Peru, which further raised the cost of internet access in Ecuador.

Given this reality, the government created a special regulation to facilitate the installation of new submarine cable connections. As a result, in November 2007, Telefónica International Wholesale Services (TIWS) connected Ecuador via the SAM1 cable, with an investment of about USD 40 million. Rafael Arranz, the vice president of TIWS, said that the cost of internet access could be reduced by 30% to 40%, and appealed to value added service providers to “also do their part” in reducing costs.

While the results are beginning to be felt, the benefits have yet to reach users. Perhaps we have to wait longer, until internet service providers (ISPs) opt for alternatives for connectivity, and assume a portion of the responsibility of lowering costs.

The regional and global trend has been to reduce the unit cost of internet access. This means that the cost for each kilobit per second (Kbps) inevitably will decline. The cost of basic access in Ecuador is between USD 15 and USD 30, with speeds ranging from 256 to 600 Kbps. This does not differ very much from a regional average of USD 20 offering speeds of 300 to 600 Kbps. Andinonet, the largest ISP in Ecuador, publicly announced an offer of doubling the access speed annually while maintaining the same price for this access until the year 2010.

How much more can the cost of internet decline? That will be defined by market forces and state intervention to prevent distortions. The problem of international connectivity has apparently been solved, while suppliers on the domestic front should make efforts to keep the internet accessible and affordable. Companies, the government and universities are responsible for the development of applications and

content that give meaning to the infrastructure, so that average citizens discover that the "network of networks" can improve their lives and that it is worth paying what it costs.

Legal and regulatory framework

Current legislation and regulations are outdated with regard to challenges such as the unbundling of the subscriber loop, allowing the installation and operation of convergent networks, and facilitating the development of community wireless networks, among other key issues. The existing regulatory framework is the result of six reforms to the Special Telecommunications Law issued in 1992. This law was created with the sole purpose of privatising the state telephone operator EMETEL. But after years of effort, little progress has been made. As a result there are two state operators with regional monopolies.

Nevertheless, 2008 has been a special year for Ecuador, because the National Constituent Assembly worked on the formulation of a proposal for a new constitution which was approved by popular referendum in September.

With regard to telecommunications, this included several aspects that deserve to be highlighted.

Article 16 surprised advocates by including within the rights of "good living" the right to universal access to ICTs, as well as equitable access to the use of spectrum frequencies.

Complementing this, Article 17 says the state "[s]hall ensure the allocation, through transparent methods and on equal terms, of radio spectrum frequencies..." This assurance of transparency is important. There are still valid complaints about the so-called "feast of frequencies" which involves more than 300 frequencies assigned without technical requirements being fulfilled. The assignment of the frequencies has been linked in the majority of cases with political and economic groups.

Article 261 declares that the state shall have exclusive responsibility over "radio spectrum and the general regime of communications and telecommunications, ports and airports." In this regard, while the opposition has denounced the proposed state control of telecommunications, the ruling party has claimed the right of the state to control these sectors, without excluding the possibility of concessions services. This disagreement will need to be urgently clarified by the new telecommunications law.

Article 313 says that the state "reserves the right to manage, regulate, and control the strategic sectors in accordance with the principles of environmental sustainability...and efficiency." It includes telecommunications and radio spectrum under the definition of strategic sectors. This has caused fear amongst private operators because in addition to the regulation and control of telecommunications, the state reserves the right to manage them.

Another surprise is Article 347, which includes the responsibility of the state to incorporate ICTs in education. It is noteworthy that the use of ICTs in education has been raised to the level of a constitutional principle. The implementation of this principle does not seem to be far

off. The National Connectivity Plan 2008-2010, submitted in August, envisages an investment of USD 78 million for schools and other educational establishments in the next two years.

Finally, referring to natural resources (which includes radio spectrum), Article 408 mentions that the state is the owner. This article in particular has caused controversy with the statement that the state will "participate in at least 50% of the benefits of the use of these resources." While the media have reported that there is a proposal for the right to confiscate that violates the right to property, the defenders of the new constitution have argued that this is not the spirit of the proposal, although their explanations have not been entirely convincing.

It is also noteworthy that the new constitution facilitates the process of merging the telephone companies Andinatel and Pacifictel into a single public telecommunications company in the period of one year.

As we see it, the new constitution incorporates new and positive principles and rights. Moreover, several articles assign the state the role of regulator and administrator of telecommunications, granting it exclusive jurisdiction. A new regulatory framework for the sector should clarify issues of competition, the management of radio spectrum, and the form of participation of private operators, among other fundamental issues. Compared to the previous constitution, the new constitution definitely contains advances and important contributions to the telecommunications sector. However, there are a couple of points that must be clarified for some sectors.

In the political instability experienced in the country, the obsolete regulatory framework and weakness of the authorities, as well as the absence of a long-term vision, have all been determining factors that have shaped the current ICT landscape. Several plans, programmes and projects have been nothing more than declarations of good intentions. A dramatic example is the flat rate for dial-up internet access, which has remained unimplemented for five years and which now, in the year 2008, even seems unnecessary.

The National Plan for the Development of Telecommunications (2000-2005) was never implemented organically and never evaluated. As a result, we will never know if it served a useful function. The government recently adopted a plan for 2007-2012, containing 16 targets, 94 goals and 319 indicators. However, these have also not been measured.

The latest government initiative has been the National Connectivity Plan, which involves an investment of almost USD 900 million over the next two years. We still need to know more details about the fate of these funds.

Action steps

To increase and improve physical access to technologies, the state must make the statement that access to ICTs is a right of all Ecuadorians a reality. The successful implementation of projects included in the National Connectivity Plan will be the best measure of this commitment.

As to the affordability of technology, efforts should be directed towards better understanding the cost structure of access and focusing on efforts to reduce service costs. It is also important to strengthen organisations so that they can advocate for better quality services and better prices on behalf of the consumer. Finally, the regulatory agency must have the necessary skills to incorporate, in a creative way, measures to regulate tariffs if so required.

Most actors recognise that one of the major challenges is the issuance of a new telecommunications law that responds to the reality of technological convergence and ensures universal service for citizens. It is therefore of vital importance to start a participatory process to discuss the principles of this new law.

"It is not the form of government which constitutes the happiness of a nation, but the virtues of the rulers and of the judges," said Aristotle. This could certainly apply to the case of Ecuador. Beyond the shortcomings of the legislation or its lack of being adapted and updated, the institutional weakness of the country's regulatory bodies and authorities has been a determining factor for the delay in the development of ICTs and telecommunications. "Regulatory capture", where bureaucrats favour particular interests, might explain many aspects of the situation in Ecuador. Large economic groups handle the mesh of interests in one of the most profitable segments of the country's economy. Corruption is no stranger to this sector, where the authorities are at least guilty of the sin of not acting. ■

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