GLOBAL INFORMATION SOCIETY WATCH 2008

Focus on access to infrastructure

Association for Progressive Communications (APC), Hivos and the Third World Institute (ITeM)

Global Information Society Watch

2008

Editor
Alan Finlay

Assistant editor
Lori Nordstrom

Publication production
Karen Higgs

Graphic design
MONOCROMO
Myriam Bustos, Leticia da Fonte, Pablo Uribe
info@monocromo.com.uy
Phone: +598 (2) 400 1685

Cover illustration
Matias Bervejillo

Proofreading
Lori Nordstrom
Lisa Cyr

Website
www.GISWatch.org
Andrea Antelo
Ximena Pucciarelli
Monocromo

Printed by
CinnamonTeal Print and Publishing

Printed in India

Global Information Society Watch 2008
Published by APC, Hivos and ITeM
2008

ISBN: 92-95049-65-9
APC-200812-CIPP-R-EN-P-0058

PERU

CONDESAN (Consortium for the Sustainable Development of the Andean Ecoregion)
Jorge Bossio
www.condesan.org

Introduction

The Peruvian telecommunications sector is regulated by two institutions: the Ministry of Transportation and Communications (MTC), which is mainly responsible for the development of policies and granting licences to operating companies; and the Supervising Agency for Private Investment in Telecommunications (OSIPTEL), which is mainly responsible for regulating and supervising competition within the sector.

The telecommunications public services market has been characterised by a growing number of operators. The most dynamic and competitive segments have been those that require the least amount of investment, such as services that do not need to deploy "last-mile" networks. Other segments that require the most investment in infrastructure (landline, public, and mobile telephone services) are provided by only a small number of operators.

Despite the important growth observed over the last few years, recent data published by the National Institute of Statistics and Information (INEI, 2008) show that more than 40% of Peruvians only have access to radio and television at home.

Policies of expansion and competition

Changes introduced in the area of regulation foster the development of convergent services, reduce entry barriers, and as a result, facilitate the entry of new operators into the market (Razo & Rojas Mejía, 2007). In 1998, through Supreme Decree 020-1998-MTC, the telecommunications market was opened to competition. Recently, in 2007, the Supreme Decree was modified, with a new set of guidelines aimed at: (i) consolidating competition; (ii) reducing the gap in infrastructure; and (iii) expanding services to rural areas. The new guidelines established the following goals for the year 2011:

- To reach a teledensity of twelve landlines and 60 mobile lines for every 100 inhabitants
- To expand telephone services (landlines and/or mobile lines) in all districts at a nationwide level
- To achieve a million broadband internet connections
- To promote convergence.

The tools for achieving these goals include policies on tariffs, transparency, retail sales (and resale), promoting the legal registration of businesses, interconnection, spectrum management, number portability, and universal service.

Mobile services

The most obvious result of the new competition policies can be seen in the mobile sector (Gallardo et al., 2007). The total number of mobile phones increased during the year 2007 from 8.7 million to 15.4 million, representing the highest rate of growth in the last ten years (76%). As a result, the goal of 60 lines for every 100 inhabitants was reached in the first quarter of 2008. Due to this fact, in February 2008, the MTC modified the telephone penetration goals to 80 mobile phone lines and fifteen landlines for every 100 inhabitants.

The results from the National Household Survey during the first quarter of 2008 (INEI, 2008) confirm that 51.5% of Peruvian homes own at least one mobile phone, which means a 15.6% growth compared to the results obtained the previous year. The growth in urban areas outside of Lima has come close to 22 percentage points, reaching 66% of homes in these areas.

Regarding rural areas, mobile phones are used by 17% of households. However, this does not necessarily imply that the phones have service coverage in these areas; rural dwellers primarily use mobile phones when they travel to or are in the proximity of urban areas.

Landline telephone services

As a result of the allocation of the 450 megahertz (MHz) band to Telefónica Móviles, the company assumed responsibility for the installation of 350,000 wireless land lines during the year 2008. This would go some way to reaching the goal of 15% penetration, but would not be enough to achieve it entirely, which is why an additional effort by the private sector is deemed necessary.

Overall growth in the public telephone system seems to have come to a standstill. After showing growth rates between 14% and 19% in 2001-2003, the installation of public telephones has slowed to 8% or lower. This could be due to the alternatives that have appeared in the country's main cities over the last few years, such as public call centres and informal mobile phone rental services. In 2008 OSIPTEL ordered a reduction in prices for calls made from public telephones, which has been followed by initiatives by telephone companies aiming to reverse the downward trend in usage.

Nevertheless, even when it constitutes the best communication alternative for those who do not subscribe to personal landline or mobile telephone services (Barrantes, 2007), the public telephone system does not form part of the goals established by the policy guidelines.

Universal access policy

In Peru universal access is guaranteed by means of the Telecommunications Investment Fund (FITEL). Between 1998 and 2001, FITEL held successful tenders for four projects. The reverse bidding process was aimed at providing targeted subsidies for operators. The subsidies provided a portion of the capital investment costs and the costs of specific stages of implementation and operation.

After 2001, FITEL found itself at several crossroads. Firstly, rural operators faced competition due to the expansion of city operator services (in the areas of both public and mobile telephony), which seriously affected their economic sustainability. Torn between the projects' sustainability and the expansion of its network, the question FITEL faced was: should the investment made in these projects be protected or should the market be left to do its job?

Secondly, FITEL found itself debating incentives for investment and the allocation of funds. Should it be careful when it selected areas for intervention so as not to interfere with the expansion plans of commercial operators? If it did this, unspent money in the fund would increase, while many rural areas would remain unserved. How would it justify the apparent inefficiency in expenditure and the growth of the fund?

Thirdly, the question of the kinds of services that should be considered universal services was raised. Should access to the internet be included in its plans? Should mobile telephone services be included?

The final hurdle involved the choice between a small local operator and a large national operator. Which should be the model for business? Should small independent operators be promoted, or was it preferable to give incentives for large operators to expand their networks from the cities to the rural areas?

Unfortunately, the administration was unable to solve these issues effectively. In its attempt to do so, it created mechanisms that aimed to define the path to be taken, such as policy guidelines to promote greater access to telecommunications services in rural areas (Supreme Decree 049-2003-MTC). This clearly indicated a commitment to a model of small companies dedicated to rural telecommunications, and to taking into consideration access to the internet and other elements of human development as part of FITEL's objectives.

However, soon after, while faced with the pressures to speed up implementation and to mobilise funds (by means of 040-2004-MTC), it was established that telecommunications operators could present projects that aimed to use their own contributions to the fund and that those projects would not require approval by the ministry. This was considered a blow to the universal access policy (Saravia, 2005).

In five years (2001-2006), FITEL was only able to evaluate and award funds to one pilot project – a telecommunications operator in the Andes. Finally, the management of the fund was transferred to the MTC by means of Law 28900 in November 2006.

The new administration of FITEL funded three large projects that focused on the provision of internet access and multi-services via broadband networks. These projects were inherited from the previous administrators of the fund and reevaluated and promoted by the current one.

In June of 2008, the MTC proposed a new regulatory framework for telecommunications in rural areas (Ministerial Resolution 242-2008-MTC/03). With this regulatory framework, MTC aims to consolidate the inclusion of broadband and the development of capabilities within the defined objectives of universal access. In it, some definitions are established regarding areas of intervention, rural operators, and MTC authority to promote investment. As this report was being written the proposal for the regulatory framework had not yet been approved.

Use of ICTs

Mobile access

Only 60% of mobile users are subscribers to a mobile service (Barrantes, 2007). The other 40% of users – mainly women and young people with low incomes – tend to borrow phones or rent phones from *chalequeros* (informal dealers). Mobile phones are associated with the possibility of keeping in contact with family and friends, with job opportunities, and with saving time.

Statistics show that users are cost-conscious. Mobile phones tend to be used during reduced-rate hours, and "flashing" – where you alert someone to the fact that you want to be called using caller ID, without actually connecting – is common amongst the lowest income earners.

Incoming call traffic represents more than 70% of total traffic on prepaid phones. However, the origin of that traffic is changing: in 2004, the calls terminated in mobile networks were mainly from landline phones (41%) and public phones (30%), but by the end of 2007, mobile networks originated 44% of the incoming traffic.

Regarding outgoing calls, on-network traffic represents 81%, followed by 12% to landline telephones, and only 7% to other mobile phone networks. This preference has been steadily increasing at a rate of approximately 6 percentage points per year since 2004, when the proportion of on-network outgoing call traffic was 63%. This can probably be attributed to price reductions and promotions.

Finally, it should be emphasised that the outgoing call traffic from postpaid phones has traditionally been higher than from prepaid phones, despite the fact that postpaid phones constitute only 10% of the total number of phones in service. This situation has changed since 2007 as a result of aggressive campaigns and promotions that focus on prepaid phone clients. Outgoing prepaid call traffic during 2007 reached 48% of the total, an upward trend which continued in the first quarter of 2008.

Internet access

A significant number of Peruvians access the internet using telecentres or cybercafés. The latest report released by the

INEI (2008) regarding the penetration of ICTs found that only 6.9% of Peruvian households have access to the internet. Despite this, 30% of the population over six years old claim to use the internet, and 75% of them access the net mainly at cybercafés.

The use of cybercafés in Lima is in decline and is being substituted by other access options such as home access and institutional access (Apoyo, 2007). In contrast, in rural areas the use of cybercafés is on the rise (INEI, 2008). The internet user profile in Peru reflects the current conditions of social exclusion: only 23% of women are internet users compared to 31% of men.

According to a recent independent report (Apoyo, 2007), 58% of residents of Lima consider themselves to be regular internet users; 92% of the population from the highest socioeconomic level claims to use the internet compared to 38% from the lowest socioeconomic level. Gender imbalances are found within the city, where only 52% of women claim to be users versus 64% of men. The average profile of the internet user in Lima is most definitely that of a man between twelve and 35 years old, with a mid-level socioeconomic status. The primary uses of the internet are for communication purposes (78.5%) and for finding information (74.7%) (INEI, 2008).

There is little information available regarding the use of the internet in rural areas. The primary activity related to the internet is communication with friends and family members, mainly by means of chatting. Email is used sparsely; in fact, only 2.7% of those surveyed considered it to be a substitute for telephone service, preferring other services such as traditional mail. Other uses of the internet, such as getting work-related information or information related to productive activities or services in general, altogether constitute only 10% of the reasons for using the net (Bossio, 2005).

Action steps

Even while the Peruvian economy is growing, the uneven distribution of wealth and the conditions of inequality and exclusion still remain quite striking.

Regarding access to telecommunications services, FITEL's intervention, and the expansion of mobile networks, have allowed for telecommunications services to be available to the majority of the population. However, it is important to take into consideration that access to these services and technologies is not the only factor that is important. The existing inequalities and exclusions based on culture, language, education, age and gender, as well as physical and mental disabilities, require greater attention. Given that the digital divide is a part or an expression of a larger social divide, it cannot be approached only from the perspective of technology. Peru seems to be moving forward in this regard, even though mostly in theory rather than in practice.

On the other hand, the globalisation of telecommunications companies' operations, and the search for economies of scale, both by operators and manufacturers, pushes developing countries towards the adoption of new technologies in urban areas even when there is no service readily available for "older technologies" in underserved areas. This presents a risk as well as an opportunity: the risk of widening the gap between those who do and those who do not have access to these services, and the opportunity for the excluded populations to "leapfrog" stages of development. For this to occur, there would need to be a stronger coordination of public policy to promote competition, the expansion of services, and a consolidated fight against poverty.

In the same way, the policy of universal access must take into account not only the coordination of sectors in the deployment of infrastructure (roads, energy, water and sanitation), but also sectors that are engaged with the development of human capabilities and the development of appropriate content (education, health, manufacturing, trade, etc.). ■

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GLOBAL INFORMATION SOCIETY WATCH or **GISWatch** has three interrelated goals:

- **Surveying** the state of information and communication technology (ICT) policy at the local and global levels
- **Encouraging** critical debate
- **Strengthening** networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. **GISWatch 2008** *focuses on access to infrastructure* and includes several thematic reports dealing with key access issues, an analysis of where global institutions stand on the access debate, a report looking at the state of indicators and access, six regional reports and 38 country reports.

GISWatch 2008 is a joint initiative of the Association for Progressive Communications (APC), the Humanist Institute for Cooperation with Developing Countries (Hivos) and the Third World Institute (ITeM).

GLOBAL INFORMATION SOCIETY WATCH
2008 Report
www.GISWatch.org

ISBN 92-95049-65-9

APC Hivos ITeM