

Karen Coppock, Harvard University
Mark Lopes, Harvard University
with Juan L. Balsevich P., Planet Internet ISP
Luis Guerrero, Upgrade Magazine

"The Internet has made us feel less landlocked."

—Senior Paraguayan telecommunications executive

" Until the telecom is privatized, connection fees will remain prohibitively high for most households."

> —Internet content provider executive, Paraguay

Paraguay is in the midst of a political and economic crisis. The country's international image has deteriorated as a result of overall instability, deep-seated government corruption, and the flow of pirated goods. Paraguay ranks sixty-third overall in Readiness for the Networked World.

Several government institutions, including the monopoly telecommunications provider Antelco, are slated for privatization with the hope that increased competition and efficiency will lead to an improvement in basic services and economic activity (Ranking in Effect of Telecommunications Competition: 62). In 1995, the Paraguayan government passed legislation to privatize Antelco and create a telecommunications regulatory authority. The government authorized the transaction in late 2000. and five companies are bidding for the contract. The process has been delayed numerous times, but is slated to take place in the first quarter of 2002.

Some hopes surround the Mercosur Agreement, which theoretically will convey benefits to all member countries, yet many feel that Paraguay must resolve its internal problems before it will be in a position to take advantage of any potential international economic opportunities.

Telephone and Internet connection and use charges remain very high in Paraguay, and services are generally poor. Delays in obtaining a new residential fixed line can be as long as one year. Not surprisingly, Paraguay has the lowest teledensity in South America and extremely low Internet penetration rates (Ranking in Network Access component index: 72). The rapid expansion of mobile telephony, which has more customers than fixed telephony, demonstrates the pent-up demand for telecommunications services. Most Internet connections are through dial-up accounts; however, because of poor telephone services, use of microwave connections, available near larger cities, is gaining in popularity, even though monthly fees start at US\$99.

While Paraguay's educational system was reformed recently, it continues to lack the necessary financial resources to give the reforms momentum. Education officials are focusing on providing support to recent reforms and giving schools a basic infrastructure and administrative framework with which to incorporate ICTs into the curriculum. Paraguay is one of the original four World Links countries in Latin America. The World Links program, which focuses on establishing Internet connectivity, teacher training, and curriculum design, is being developed within the framework of the National Policy on New Technologies in Education. The national telecommunications commission (CONATEL) has provided an Internet connection, a computer, or both to more than 300 schools, sixty of which receive direct support from World Links.1 Although many World Links centers are located in urban areas where Internet connections and reliable electricity are available, there is a strong effort to connect rural areas as well (Ranking in Internet Access in Schools: 63). While the program has succeeded in providing connectivity and initial training, the typical challenges of local support and education remain significant obstacles to taking advantage of the donated equipment. Although overall computer use is low and Internet diffusion is still in its initial stages, many rural and urban families are investing enthusiastically in private computer education for their children. This has spurred growth of private education facilities throughout the country.

Paraguay

Key Facts

Population	5,496,000
Rural population (% of total population) 1999	44.72 %
GDP per capita (PPP)	US\$4,396
Global Competitiveness Index Ranking, 2001–2002	72
UNDP Human Development Index Ranking, 2001 (adjusted to GITR sample)	54
Main telephone lines per 100 inhabitants	5.00
Telephone faults per 100 main telephone lines	NA
Internet hosts per 10,000 inhabitants	2.36
Personal computers per 100 inhabitants	1.09
Piracy rate	76.00 %
Percent of PCs connected to Internet	2.77 %
Internet users per host	12.05
Internet users per 100 inhabitants	0.37
Cell phone subscribers per 100 inhabitants	19.55
Average monthly cost for 20 hours of Internet access	US\$22.25

RANK

vork	ced Readiness Index	6
Netv	vork Use component index	
Enabling Factors component index		
	Network Access	
	Information Infrastructure	
	Hardware, Software, and Support	
	Network Policy	
	Business and Economic Environment	
	ICT Policy	
	Networked Society	
	Networked Learning	
	ICT Opportunities	
	Social Capital	
	Networked Economy	
	e-Commerce	
	e-Government	
	General Infrastructure	