

.tl/.tp

Timor-Leste

João Câncio Freitas

Background

After gaining independence in May 2002, Timor-Leste became the newest country in the world and the 191st member of the United Nations. The official domain name for Timor-Leste is '.tl' although '.tp' is also still being used. Portugal ruled the territory for almost five centuries. This colonial era was followed by a controversial period of Indonesian occupation for more than two decades since late 1975. The occupation culminated in a UN-sponsored referendum held in August 1999 where, the majority of the people rejected the Indonesian proposal for autonomy, opening the way to independence. After the referendum, a huge military campaign of killing and destruction took place, backed by pro-Indonesia militiamen. The rampage forced more than half of the population to leave their homes, destroyed about 80 per cent of the schools and clinics and damaged the country's economic and social infrastructures.

In 2004, census results indicated that the population of Timor-Leste had reached nearly 925,000. With a population growth rate that is one of the highest in the world, Timor-Leste's population is expected to double by 2022, placing increasing pressure on public services, food security and the labour market. Service delivery has steadily improved, yet services are reaching a smaller proportion of the population than had previously been thought. Unemployment rates are high and growing in the face of a rapidly expanding youth population. In this context, enhancing the provision of sustainable services and creating productive employment, especially in the rural areas, within a framework of good governance will be critical to ensuring economic growth and poverty reduction in the years to come.

The national human development report of 2006 still places Timor-Leste as one of the world's least developed and poorest

Total mobile phone subscribers	
Prepaid	42,608
Postpaid	1,770
Number of Internet subscribers	
Dial-up	680
SDSL	17
Telecentres in the communities	8
Internet bandwidth	
Up Link	5 Mbps
Down Link	7 Mbps
Note: All figures are as of 2006.	

countries and far behind the other countries in the region. While the national human development report of 2002 placed the per capita GDP at only USD 478, the latest reports show that per capita income is even lower at only USD 370 per year. Life expectancy is short, education levels are low and a high proportion of the population live below the poverty line.

The country is still suffering from the destruction and trauma that followed the referendum in August 1999. Seven years of UN presence (since late 1999) and four years of full sovereignty have not translated into concrete material gains for the people of Timor-Leste. In fact, per capita income and infrastructure have not rebounded to the levels present during the Indonesian occupation. Poverty and disenfranchisement, as well as disillusionment with the government in some sectors of the population, are factors in the social and political crises in 2006 that led to the dismissal of the first government and the installation of the second constitutional government.

Telecommunications infrastructure

Under Indonesian administration, the telecommunications sector was large, with the government as the biggest user. The sector provided telephone services to almost all parts of Timor-Leste using digital exchanges. In 1998, there were approximately 6,750 phones connected, of which 4,800 were in Dili. An exchange had been constructed in Dili with a capacity of 15,000 customers, well in excess of the local connections at the time. Mobile phone coverage was limited to Dili, although land line access was available in all districts. At that time, this was equivalent to about 13 phone connections per thousand population in Dili and

the district capitals served. On a national basis, the telephone density was about eight phones per thousand. Timor-Leste had one of the lowest teledensities among countries with roughly comparable levels of GNP per capita.

Practically the entire ICT infrastructure of Timor-Leste was destroyed in 1999. This has given rise to considerable improvisation in the past four years.

The communications sector plays a key supporting role to the other sectors of the economy. ICT such as radio, television, telephones, computers and the Internet can provide access to knowledge in areas such as agriculture, micro-enterprise, education and human rights, offering a range of choices that enable the poor to improve their quality of life. Thus, the Timor-Leste government's objective for the communications sector is universally available communications that brings telephone, Internet and broadcast services to communities throughout the country.

Much remains to be done to accomplish this objective. However, the time is propitious for well-placed, relatively small investments to leverage far reaching changes in the way people communicate, learn and do business. Public telecommunications services are being rebuilt under a Build-Operate-Transfer (BOT) arrangement with Timor Telecom. Public broadcasting has been restored and, with the help of several donors, community broadcasting services have been started in all of the Districts. There is one public broadcaster operating a radio and television service (RTL and TVTL). RTL has repeater facilities in each district, enabling broadcasts to almost all Timorese households. The television service is limited to Dili and Baucau, with the latter having the facilities to broadcast only taped programmes.

The business community and other segments of the private sector have developed their own communications network based on satellite phones. Government ministries have also developed their own separate infrastructure to deliver at least some of the services they need to function effectively. In key areas such as health, the development of these networks has been supported with donor funding to ensure that the Ministry has the capacity for health-related communications, including medical emergencies. The government also operates an internal computer communications network and rents Internet access from the UNDP.

With the award of a 15-year franchise to Timor Telecom in 2002, there has been significant progress in developing a national telecommunications network. Effective December 2003, the Timor Telecom network provided nationwide voice and Internet services covering Dili and the 12 district capitals. Under the conditions of the BOT contract, there are no long distance charges; uniform tariffs apply across the entire country. Private telecommunications services are not subject to the

monopoly. Both public and private institutions can build and operate their own network. However, such services cannot be resold or offered publicly.

Currently, the number of fixed connections is about 3,000, while use of mobile phones has increased appreciably and is estimated to be about 44,400. These estimates imply about 40 telephones per thousand inhabitants—still low by international standards but an appreciable increase from 1998.

As mentioned, in 1999 practically the entire communications infrastructure of the country was destroyed. Initial efforts to restore telecommunications services were led by the International Force for East Timor (INTERFET), after which the Australian telecommunications company, Telstra, provided public services on a rolling, short-term contract basis. For the most part, this service was mobile, although a small portion of the landline network was restored. In these circumstances, the United Nations Transitional Administration in East Timor (UNTAET) developed and maintained its own stand-alone telecommunications system. The business community and other segments of the private sector developed their own communications networks (satellite phones, for example), especially those located outside Dili.

In the first phase of the telecommunications development programme, the objectives were as follows:

- To complete ongoing restoration of the telecommunications infrastructure and related training and development programmes;
- After rehabilitation of the infrastructure, to establish the legislative framework for regulating the telecommunications industry; and
- To prepare a tender for an experienced international company to develop the public telecommunications system on a BOT basis.

There has been considerable progress towards these objectives. The National Development Plan (NDP) recognizes clearly that telecommunications is a capital-intensive industry and that the broad objectives of the Plan could be achieved through a BOT contract with an experienced major private international company. The objective was to support the development of the industry with 'state-of-the-art telecommunications...[and] [f]rom the start of the contract, consistent and thorough training of local technicians and administrative staff and a full transparent...system with rapid deployment of capital.' The BOT contractor would be expected to build local capacities for transfer at the end of the BOT contract.

In 2002, the principal regulations and laws pertaining to public telecommunications were incorporated into an organizational BOT tender. Following a public BOT tender, a

contract was awarded to Portugal Telecom International (PTI) and Timor Telecom (TT) in July 2002 to rebuild and operate public telecommunications in Timor-Leste. The contract extends a 15-year franchise to TT. Service provision began in the middle of 2003. By that time, TT had spent a total of about USD 12 million on the development of the national network. In December 2003, the network became fully operational and TT began to provide nationwide voice and Internet services covering Dili and the 12 district capitals. The BOT contract with the government specified that TT must supply ‘universal’ service at the same cost anywhere in the country.

Internet in Timor-Leste

Use of the Internet in Timor-Leste is encouraging. There are around 700 Internet subscribers; of these 680 subscribe to dial-up services and the remaining use SDSL (Symmetric Digital Subscriber Line). The level of Internet access, which today is considered to be one of the more obvious indicators of whether a country belongs to the Global Information Society, is still on the low side. Currently there are two operational Internet Service Providers (ISPs) and both run their main operations in Dili. An Internet subscription is usually shared by several people, especially accounts belonging to government, non-government institutions and companies. Only a few residents have Internet access in their own private residences. The main limitations are said to be economic—that is, the relatively high costs of computers, telephone lines and ISP fees. It is likely that at least 80 per cent of all users are in Dili. Even if reliable telecommunication facilities and ISP POPs now exist particularly in Dili, unreliable electricity, high Internet costs and lack of computers and skills limit the use of the Internet outside of the capital.

There are some Internet cafés in Dili, and a few of the better hotels in Dili offer Internet access to their guests. TT has been developing eight telecentres in the communities (TT shops). These are cybercafés that offer telephone services and Internet access. Internet cafés in Dili charge about USD 3 an hour.

Broadcasting services

Radio is a major channel for communication of information in Timor-Leste. According to a survey conducted in 2002, 69 per cent of the population listen to radio; of this total 42 per cent listen to radio everyday, 13 per cent listen between three to four days a week, and 8 per cent listen from one to two days a week, bringing the overall total to 63 per cent (The Asia Foundation 2002). For example, the government uses radio broadcasts

to inform the population about the National Development Plan. Radio broadcasting services are provided by the Public Broadcasting Services (PBS) and by local, community-based stations.

Public broadcasting services

The creation of the PBS is mandated by the Constitution of Timor-Leste. It was established by law in March 2002. The PBS was created as an independent service whose budget is to be guaranteed by government, but government is not to interfere with editorial decision-making. The PBS is a juridical citizen—that is, it can own property and be used independently of government. It is allowed to receive contributions from various sources and to generate revenues to cover its operating expenses.

There is one PBS radio station in Dili that is re-broadcast on 12 transmitters throughout the country, primarily to district capitals. Dili has two transmitters, one FM and one AM. These radio programmes are distributed via satellite link to the 12 district capitals at a total cost of USD 1,500 per month. The PBS plays a major role in the development of democracy, in national dialogue and reconciliation and in providing information about health, education, agriculture and other sectors that save lives and improve the quality of life of the people of Timor-Leste.

There are currently two public broadcasting television transmitters, one in Dili and one in Baucau. The former is very unreliable and is also badly in need of replacement since parts needed for the repairs are no longer available in the market. The Dili transmitter currently operates at 10 per cent of its rated power. The television transmitter in Baucau is not yet linked to the network and can only play tapes. Given the severe limitations of the domestic service, a number of individuals have installed satellite television for their personal use in order to receive international programming.

Community radio services

There are 18 locally run not-for-profit community radio stations broadcasting to local communities throughout Timor-Leste. Of the existing community broadcasters, only one station—Radio Timor Kmanek (RTK) in Dili—was on air prior to 1999. Since 1999, another 16 locally owned and operated community radio stations have started operations. They were set up by local communities with help from a range of aid agencies, including the United States Agency for International Development (USAID), the World Bank, UNESCO and Internews.

There is one community radio station based in each district outside of Dili and six stations established in Dili, of which two

are not currently broadcasting. In addition, the international network of Christian broadcasters established a radio station called Voice FM in Dili in October 2003, while the Diocese of Baucau established an FM radio station in Baucau in late 2005. There are also five stations that repeat the signal of international broadcasters, including Radio Australia and BBC (British Broadcasting Corporation) World Service.

The legal and regulatory framework

In November 2003, the government promulgated the basic legal framework for telecommunications. The relevant laws are:

1. Law 11/2003, which set the basic framework for telecommunications, postal services and BOT franchise (Timor Telecom)
2. Law 12/2003, which created the Communications Regulatory Authority—*Autoridade Reguladora de Comunicações* (ARCOM)—to regulate Timor Telecom and other areas of telecommunications and postal services

In addition, UNTAET Public Broadcast regulation 5/2002 provided for the creation of an independent Public Broadcasting Service on 20 May 2002.

Although some broadcasting laws and regulations exist, as mentioned earlier, laws relating to community and private broadcasters have not yet been enacted. In effect, community broadcasting is self-regulated. In the absence of an enacted regulatory framework, the Association of Community Radios in Timor-Leste has developed a Code of Practice for all community broadcasters with support from Internews. The main issue in broadcasting is the sustainability of the various institutions.

ARCOM is intended to consist of a Council and an operational organization. However, the Council has yet to be formed and only a handful of staff is currently employed to perform some of ARCOM's regulatory function. The International Telecommunication Union (ITU) is currently providing assistance to the Government of Timor-Leste in establishing the operational structure for ARCOM. Included in this initiative will be significant support to enable ARCOM to manage and

regulate the telecommunications sector in the country. Among the major outputs will be a Telecommunication Act, a Radio Communications Act and a Broadcast Act.

ITU will also assist in the elaboration of a National Frequency Plan, National Radio Regulation and a guide for spectrum monitoring. Likewise, ITU will assist in the introduction of WinBASMS as the computerized Spectrum Management System for the country. Assistance will be provided for the design of a coverage map for MW, FM and TV broadcasting, and the enhancement of local competence in all of the areas mentioned. The project will include an integrated capacity building process for upgrading the skills of ARCOM staff. It is expected that at the end of three years, Timor-Leste will have established a robust regulatory organization, acquired sufficient know-how and formulated some of the most significant regulatory policies towards the development of a healthy telecommunications sector.

National ICT initiatives

Aside from building up the telecoms regulatory organization and framework, the Government of Timor-Leste is currently undertaking a convergence study to lay the foundations for integrated voice and data services within the government in a cost-effective manner. This study will be implemented in conjunction with two other new projects to improve government telephone services, and to improve government Internet services. These initiatives could save the government over USD 1 million a year in communications costs.

Another initiative to reduce poverty and increase growth through the improvement of rural infrastructure is the Internet for Isolated Villages Pilot project. The project is designed to provide Internet service in remote and/or isolated village schools and communities. Introducing the Internet into village schools can not only transform education in rural Timor-Leste but also help modernize communications for agriculture and rural commerce.

Reference

The Asia Foundation. (2002). *National survey of citizen knowledge*.