

# Timor-Leste

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## Overview

Timor-Leste, or Timor Lorosae, “Timor of the rising sun”, is situated on the eastern part of the island of Timor, the eastern-most of the Lesser Sunda Islands. It is bordered on the west by the Indonesian province of Nusa Tenggara Timur. To the north lies the Savu Sea and the Strait of Wetar. To the south, 500 kilometres across the Timor Sea, is Australia. Also part of the national territory of Timor-Leste are the enclave of Oecussi in the western part of Timor island and the islands of Ataúro and Jaco.

Timor’s relief is characterised by a core of rugged hills and mountains consisting of a confused mass of knife-edged ridges and craggy upland blocks. The highest point is Mount Tatamailau at 3,000 metres. Steep slopes are found in around 44 percent of Timor-Leste, which, combined with heavy rainfall, lead to soil erosion. The climate is hot, with an average temperature of 21°C and around 80 percent humidity. During the dry season, Timor-Leste has moderate winds and slightly milder temperatures of 18°C on the coastline and 10°C or lower in the mountains. But between November and April, in the monsoon season, the rivers become torrents because of extremely high precipitation. During this period, the average temperature on the coast is about 25°C. On the northern coast, rainfall ranges from 500 to 1,000 millimetres per year and there is only one harvest. The southern coastal plain, however, can receive over 2,000 millimetres and have two wet seasons and two harvests. The island is also affected by El Nina-related weather anomalies.

There are 12 ethnic groups in Timor-Leste, each with its own language: nine Austronesian language groups (Tetum, Mambai, Tokodede, Kemak, Galoli, Idate, Waima’a, Naueti) and three Papuan language groups (Bunak, Makasae, Fatuluku). The Tetums live in two separate geographic areas within Timor-Leste. A simplified version of the Tetum language was utilised in Dili by the Portuguese as a lingua franca. Though widespread, it is not understood by all. Timor-Leste comprises 13 districts, 67 subdistricts, 498 villages (*sucos*) and 2,336 subvillages (*aldieas*).

On 30 August 2001, on the anniversary of the referendum, Timor-Leste held elections to choose political representatives, whose task was to draw up a new Constitution. The constitution was approved on 24 March, 2002. On 14 April, the same year, the first presidential

election was held and won by Xanana Gusmão. Independence was celebrated 20 May 2002 after 24 years under Indonesian rule and more than 400 years as a colony of Portugal.

## ICTs

ICTs are quite new to Timor-Leste. The first computer probably arrived here in the early 1990s. In the education sector, the National University of Timor-Leste and the University of Martinho Lopes have set up departments of information technology. The first intake of students in the National University of Timor-Leste was in May 2001. Courses are conducted in Portuguese and follow the Portuguese curriculum. The University of Martinho Lopes enrolled its first intake in September 2002.

Little ICT is used in the other sectors. The total number of computers deployed in the government is about 1,000 units. According to the Ministry of Post and Telecommunication, only 70 of them are connected to the Internet.

## Important local sources of content

### UNDP Timor-Leste <<http://www.undp.east-timor.org>>

This site reports on development projects that have been established in Timor-Leste. It also reviews current developments in progress in the country. UNDP also lists publications that can be accessed via this site. All of the content is in English.

### Timor-Leste News <<http://www.solidamor.org>>

This website provides current news on Timor-Leste. It is updated frequently and is published in two languages: English and Indonesian. It also provides news on Indonesia, Myanmar and Malaysia.

### Government of Timor-Leste

#### <<http://www.gov.east-timor.org>>

This website is still under construction. The main language used is Portuguese. It provides the e-mail addresses of all the government agencies. The Timor-Leste constitution can also be downloaded.

**Timor-Leste Action Network** <<http://www.etan.org>>

This website reports on supporters within and outside Timor-Leste, especially in the USA.

**Timor Aid** <<http://www.timoraid.org>>

The site offers information about the Catholic religious communities (over 30 groups are included) and a few other independent groups providing aid to Timor-Leste. The focus is on orphans, street children, the disabled, the poor, leprosy sufferers, school hostels (for rural youth) and health clinics. The site provides links to a few organisations in Timor-Leste and is published in English.

**United Nations in Timor-Leste**

<<http://www.un.org/peace/etimor/etimor.htm>>

This website is about the UN Mission in Timor-Leste and is published in English. The UN Resolution and UN official documents about Timor-Leste may be downloaded here.

**Timor Post** <<http://www.easttimorpress.com>>

This online newspaper contains local and international news. It is published in four languages: Indonesian, English, Tetum and Portuguese.

**Suara Timor Lorosae** <<http://www.suaratimorlorosae.com>>

This online newspaper contains local and international news. It is published in four languages: Indonesian, English, Tetum and Portuguese. It is updated less promptly.

**ICT industries and services**

The first Internet connection was established on 2 February 2000 by UNDP and was immediately extended to all UN agencies. Initially established at a speed of 64 Kbps, the link was upgraded to 128 Kbps in April the same year. Because of the good services offered by UNDP, the list of interested clients grew quickly. This led to further upgrading in May 2001 to a speed of 128 Kbps outgoing and 512 Kbps incoming. Plans are underway to upgrade it even further to 256 Kbps/1,024 Kbps. Half of the bandwidth will be dedicated to the government, while the rest will be shared by development agencies and NGOs.

The project has been established with technical assistance and in-kind contribution from the Asia Pacific Development Information Programme (APDIP) of UNDP and Cisco. It provides direct Internet access to the government, 42 national and 40 international NGOs, one diplomatic mission and 6 UN agencies. The number of users is likely to increase.

The types of connections that are offered by the project include the following:

- Wireless connection for the government and development agencies
- Direct connections for the UN agencies located at the UN House
- Dial-up leased-line connections
- Dial-up single users

**Timor-Leste facts**

**Total population:** 800,000 (estimated)<sup>a</sup>

**Rural population as a percentage of total population:** 90%<sup>b</sup>

**Key economic sectors:** Primarily subsistence farming and fishing<sup>a</sup>

**Literacy in the national language(s):**  
Tetum 82%, Portuguese 5%, Indonesian 43%<sup>c</sup>

**Literacy in English:** 2%<sup>c</sup>

**Internet cafés/telecentre per 10,000 inhabitants:** 1 Internet café in the country.

**Number of websites in the national language(s):** 5 (estimated)

**Number of websites in English and other languages:** 20 (estimated)

**National bandwidth to and from the country:** 1,024 Kbps/256 Kbps<sup>d</sup>

**Ratio of incoming to outgoing Internet traffic volume:** 2:1<sup>d</sup>

**Sources:**

(a) <<http://www.infoplease.com/ipa/A0902237/htm>>.

(b) *East Timor: Building Block for a Nation*. Nov. 2000.

(c) *East Timor: 2001 House Survey*.

(d) UNDP Internet Project

The monthly cost for Internet connection ranges from US\$50 for unlimited usage to US\$1,000 for wireless connections.

The project has also established an IT Training Centre (ITTC) at the National University of Timor-Leste. It was opened in May 2001. Since then, about 660 students and staff have been trained via various computer courses. The training has focused on Microsoft Office applications, programming and statistical applications. Other areas of training are being considered.

A survey is being conducted to see which other areas may be beneficial to youths leaving schools and colleges. The centre has 22 Dell computers donated by APDIP-UNDP. The project operates on a self-sustaining basis with the revenue generated being used to pay for the satellite link, purchase of equipment, telephone bills and monthly allowances for its staff.

Timor Telecom operates the second ISP. UNMISSET, a wing of the UN, maintains its own Internet facilities.

There is only one cyber café in the Dili area, which is operated by Timor Telecom. The cost of access is US\$2 for a block of 15 minutes.

## Examples of innovative and key initiatives

The inauguration of ITTC created a facility for the development of ICTs in Timor-Leste, especially for the youth. This centre is a collaboration between APDIP-UNDP, Yayasan Salam Malaysia and UNDP Timor-Leste, with the National University of Timor-Leste as the host for the centre. To date, the centre has provided about 500 trainees with basic computer knowledge. Each course lasts a total of about 36–40 hours spread over a month. The courses offered cover Windows 98, Microsoft applications (Word 2000, Excel 2000, PowerPoint 2000) and an introduction to the Internet.

The youths in Timor-Leste are keen to learn. Many of them have secured good jobs after completing their training at ITTC. The centre provides training not only to youths but also to university lecturers and staff. Requests for training are also coming from government bodies, such as the Land and Property Unit, the Timor-Leste Public Administration, and the Ministry of Justice.

There are about 12 computer training centres in Dili. The other centres are operated either by local individuals or NGOs.

## Enabling policies

The Agency of Information Technology, Post and Telecommunications (ITPT) presented to the government on 2 May 2001 a proposal for a National Telecommunications Policy. This policy recognises that “access to reliable and affordable telecommunications is a prerequisite for sustainable economic growth and social cohesion”. It emphasizes “the need for the rapid development of a telecommunications infrastructure, coupled with a high quality of service in line with supporting national development”.

The policy proposes a telecommunications architecture built upon the existing microwave tower network. With the addition of three new towers, a ring network can be built which will serve the whole country through the district capitals. It will use as a switching device the Siemens switch in the Telecommunications Building in Dili. This switch can handle 7,000 telephone lines, and it is expected that this capacity is enough to last some ten years (all the while providing the national government with 2,000 phone lines).

The architecture is also proposed to support voice, data and image transmission so that the government may have access to not only telephone services, but also the Internet and international e-mail. The public will have access to the same services. The network will also handle mobile phone services in Dili and the district capitals. The policy provides for the development of a competitive market of ISPs. The provision of voice services over the Internet will be controlled via a licensing process. The policy also proposes

a spectrum management approach to be controlled by ITPT. Given this telecommunications infrastructure, the government has to consider how it will use IT in its management and its service delivery to the population. It is universally recognised that IT can be a real asset in these areas.

There are no domestic ICT policy and IT capacity. Developing this capacity will take time: in some cases, up to 18 months, in others up to four or five years. If the government decides to go the IT route, then it will need to train at least a portion of the civil service in the use of the software packages that will be made available. Training will also be required of the management or operational applications (accounting packages, database applications, etc.) made available. User training has already started in the Civil Service Academy for civil servants and at the ITTC for undergraduates.

The government might also envisage outsourcing the entire IT operation. But at the outset this would probably cost too much money.

## Regulatory environment

The existing system began after 1999. With 60–90 percent of the physical telecommunications infrastructure severely damaged or destroyed, less than 10 percent was maintained well enough to be put into service with severe staff shortages. There were no public telephone booths at the time of writing.

Timor Telecom provides public telecommunications services under a build operate and transfer scheme. Most telephone services are mobile, although a limited land-line network has been installed. The coverage extended to only selected areas including Dili, Baucau, Lautem, Suai and Oecussi at the time of writing.

The Communications Regulatory Authority will be fully established and empowered as the government regulator of all communications services in Timor-Leste, including:

- public and private policy development
- radio frequency electro-magnetic emissions and standards
- regulations pertaining to post and the Internet

A dispute about the local domain registry has arisen. The country domain was originally set up as “.tp” (Timor Portuguese), but it has been proposed that it be changed to “.tl” (Timor-Leste).

## Future trends

The difficult birth of Timor-Leste and the destruction of basic facilities and amenities will not keep the Timorese behind. They have now begun to cope with the new technologies. Even with a lack of ICT infrastructures, they have learnt to access and make use of global information resources. The input from the UN and its agencies will help accelerate the diffusion of ICTs among young Timorese.

The establishment of the local telecommunications company, Timor Telecom, in March 2003 has made a great contribution towards the rebuilding of the sector and will ensure that services are delivered nationwide.

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