

Myanmar

Pyone Maung Maung



Overview

Myanmar (Union of Myanmar) is a member of the Association of Southeast Asian Nations (ASEAN). It has a total land area of 676,577 square kilometers and borders China, Thailand and Lao PDR to the east and Bangladesh and India to the west. There are 14 states and divisions in Myanmar with Yangon as the capital. The size of the population is 51.2 million with an urban-rural ratio of 20:80.

The ethnic make-up of Myanmar includes the Bamars, who are akin to Tibetans, as a major group and the minority groups of Kachin, Kayah, Kayin, Chin, Mon and Rakhine. The Myanmar language is the official language with English being used in business circles. Theravada Buddhism is the predominant religion (89.3 percent). The other religions in the country are Christianity (5.6 percent), Islam (3.8 percent), Hinduism (0.5 percent) and Animism (0.2 percent).

Myanmar is an agriculture-based economy. The other major industries are timber, marine products, steel, textiles and garments. The major exports consist of rice, teak, beans and pulses, rubber, coffee, minerals and gems. The major imports are fertilisers, diesel oil, mild steel, cement, palm oil, power tillers, dumpers, loaders and spare parts, excavators, hand tractors and water pumps. Major trading partners include China, Thailand, India, Malaysia, Singapore, Japan and the USA.

ICT infrastructure

The highest national body for ICTs in Myanmar is the Myanmar ICT Development Council, which is chaired by the First Secretary of the government. The focal point of the council is the e-National Task Force which was formed in 2000 and chaired by the Minister of Telecommunications, Post and Telegraph with high-level representatives from various ministries, departments and organisations as members. There are six working committees under the task force: the Legal Infrastructure Working Committee, chaired by the Director General of the Attorney General's Office; the Information Infrastructure Working Committee, chaired by the Chief Engineer of Myanmar Post and Telecom; the IT Education Working Committee, headed by the Rector of Yangon University of Computer Studies; the e-Application Working Committee, headed by the Chairman of Bagan Cybertech, an ISP; the ICT Standardisation Steering Committee, chaired by the Deputy Minister and Vice

Chairman of the e-National Task Force and Liberalisation of ICT Products; and the Services and Investment Working Committee, chaired by the Director General of the Customs Department.

The working committees have been working to achieve the goals set by the e-ASEAN Framework Agreement, which member states signed in November 2000.

Legal infrastructure

In order to promote e-commerce activities in the country and to harmonise the legal system with those of other countries, especially with member countries of ASEAN, the Legal Infrastructure Working Committee has been drafting cyber laws. This is being done in two phases. The first phase is to amend the existing Science and Technology Law and Computer Development Law as a stopgap measure before comprehensive cyber laws are implemented. The amendment of these laws was completed in June 2002.

The remainder of the cyber laws will cover elements such as digital signature, payment gateway, certification authority, intellectual property rights, cyber security and crime. Drafting of these laws is underway and is scheduled to be completed by 2003. Local legal experts are working with foreign experts in organising workshops and training programmes to support the drafting process. The training is conducted with the cooperation of organisations such as the e-ASEAN Task Force, JICA and the Multimedia Development Corporation of Malaysia.

Telecommunications and the Internet

Telephone density in Myanmar is 0.6 percent, which can be considered as one of the lowest in the world. In urban areas, such as Yangon and Mandalay teledensity is 3.6 percent and 2.3 percent respectively.

The state-owned Myanmar Post and Telecom (MPT) is the only telecommunications operator in the country. There are 102 auto-switches in Myanmar, most of which are analogue. In 2001, MPT upgraded the majority of the switches in Yangon and Mandalay to fibre optic, digital switches. The total number of lines installed in the country is around 300,000, including mobile phones. MPT is installing a GSM mobile system in two phases. Phase 1

covers Yangon with 70,000 lines and Mandalay with 30,000 lines. The second phase will cover 11 towns across the country with a total of 35,000 additional lines.

MPT currently has direct links to South Korea, Japan, Hong Kong, Thailand, Malaysia, Singapore, Indonesia, Brunei, Australia, Taiwan, France, India, UK, Germany and China via a total of 1,024 channels established with satellite and SeMeWe3 fibre links.

There are currently two ISPs in Myanmar. MPT is the first providing e-mail, web-hosting, web-browsing, server co-location, FTP and intranet services.

The second service provider is Bagan Cybertech (BCT). It was established in September 2000. Its Teleport was completed in December 2001. Its Internet Data Centre and Teleport facilities were offered to the public beginning in January 2002. These facilities include virtual private network services for domestic banks, government departments, private companies and NGOs, and a VoIP gateway.

BCT also introduced VSAT services, which utilise the Thaicom2 satellite. In order to ensure high reliability and countrywide coverage, C-band frequencies are used. Initial bandwidth is 4 Mbps with a the maximum capacity of 45 Mbps. Approximately 250 remote sites are currently in operation with uplink data rate of 128 Kbps, capable of carrying not only data but also voice, fax, LAN and video traffic simultaneously.

BCT also offers Internet services to the general public mainly via dial-up access. Services to cooperatives and small and medium enterprises (SMEs) are provided via broadband VSAT/IP Star with a bandwidth of 4 Mbps expandable to 16 Mbps.

In April 2002, broadband wireless local loop (WLL) service was launched in Yangon to provide cost-effective high-speed data and basic voice services. In the same month, another teleport facility was established in Mandalay, the second capital of Myanmar situated 600 kilometres away from Yangon.

Education

The adult literacy rate in Myanmar is 83.6 percent. The enrolment rate in primary schools is 99.3 percent and 54.2 percent in secondary schools. There are more than 300 basic education schools (primary and secondary) equipped with multimedia classrooms, which consist of computer-aided instruction rooms, computer-application rooms and language laboratories. The Ministry of Education is carrying out a comprehensive plan designed in four phases, beginning from 2000, to upgrade universities and colleges with ICT facilities, which include teaching centres, learning centres, resource centres and electronic libraries. A total of 36 universities have been provided with such facilities and 20 of them are linked via VSAT. The University of Distance Education has completed setting up of TVRO (television receive-only) satellite learning centres in various parts of the country. There

Myanmar facts

Total population: 51.2 million

Rural population as a percentage of total population: 80%

Key economic sectors: Agriculture, timber, mining, marine products, textiles and garments

Literacy in the national language(s): 83.6%

Literacy in English: 25% (estimated)

Computer ownership per 100 inhabitants: 0.5

Telephone lines per 100 inhabitants: 0.6

Internet users per 100 inhabitants: 0.5

Cell phone subscribers per 100 inhabitants: 0.06

Number of websites in the national language: 43

National bandwidth within the country: 4 Mbps

National bandwidth to and from the country: 6 Mbps

Ratio of incoming to outgoing Internet traffic volume: 65:35

Sources:

Myanmar Facts and Figures (2002)

Myanmar Post and Telecom

Bagan Cybertech

are altogether 330 of these centres, which are available to students enrolled in correspondence courses.

There are 2 universities of computer studies and 22 computer colleges under the Ministry of Science and Technology which are equipped with facilities similar to the universities run by the Ministry of Education. Approximately 25,000 ICT professionals will graduate annually starting from 2004. A cross-certification programme for IT engineers was carried out with Japan in 2002.

Content

The following is a small selection of websites providing information on Myanmar:

Myanmar.com <<http://www.myanmar.com>>

This is a source of official news and information on Myanmar. It provides a useful list of Myanmar embassies abroad and links to other sources of information.

Myanmar Information Committee

<<http://www.myanmar-information.net>>

This website is run by the Myanmar Information Committee. It publishes a diary of official events presented in the form of information sheets.

Myanmar Tourism Promotion Board

<<http://www.myanmar-tourism.com>>

Lists of hotels, tour operators, adventure tours, eco-tourism events, river cruises and travel tips are provided by the Myanmar Tourism Promotion Board at this website.

Bagan Cybertech <<http://www.bagan.net.mm>>

A mixture of news, games, links and e-commerce are available at this website operated by BCT.

ICT projects

There are a number of projects underway supervised by the e-Application Working Committee:

e-Passport: The project was launched in October 2002 for frequent travellers and government officials. The e-passport was introduced for authentication and access control using a biometric system in a chip embedded in the passport.

Smart cards: This project was carried out at one of the ministries and will continue at various other ministries as well as in general public applications, such as vehicle registration, border pass and banking.

Smart schools: This project was introduced in three primary and high schools in Yangon in cooperation with Malaysia. Content development was underway at the time of writing. Connectivity is provided by BCT. The ISP will also sponsor the connectivity for an additional 100 schools with multimedia classrooms to create the SchoolNet in Myanmar.

Certification authority: One of the projects is to set up a National Certification Authority. Other projects involve an e-procurement system and trade electronic data interchange, and online account trade.

Standardisation

Currently, more than 50 fonts with various codes are in use in Myanmar. Standardisation of the Myanmar character code set has been completed and approved according to ISO 10646 and Unicode standards. However, the implementation of this character code set on operating systems such as Microsoft and Unix is still in the development stage and is expected to be completed by 2003.

Standardisation of codes for custom tariffs has also been completed. Standardisation of the area code set and ICT terminologies in the Myanmar language was underway at the time of writing.

ICT industry

One major development of the ICT industry in Myanmar is the establishment of the Myanmar ICT (MICT) Park in Yangon. It was developed by a consortium consisting of 50 local ICT companies and was inaugurated on 21 January 2002. It occupies 30 acres of land provided by the government. There are currently 30 software companies operating there working mainly on content creation and application software. The second phase of construction of the park is underway. It will consist of more than 100 rooms for hardware production, a cyber mall for ICT products, exhibition halls and offices. The completion date for the whole project is set for 2005.

NGOs

There are four major ICT-related NGOs in Myanmar: Myanmar Computer Federation, Myanmar Computer Industry Association, Myanmar Computer Scientists' Association and Myanmar Computer Enthusiasts' Association.

The Myanmar Computer Federation is working with the e-National Task Force to draft the ICT master plan together with action plans for future ICT development in Myanmar.

Future trends

The e-Application Working Committee is planning development programmes for government departments. The ICT private sector, led by the Myanmar ICT Development Council, is developing home-grown solutions for e-government projects, such as computerisation of the Customs Department, trade information services, port authorities, and content for the smart schools. The Union of Myanmar Federation of Chambers of Commerce and Industry is developing a domestic trade portal in the Myanmar language for local agricultural produce wholesalers. Efforts to develop applications and local content are targeted at both government departments and private sector traders, banks and SMEs. Myanmar is also building its infrastructure based mainly on satellite and wireless technologies. Security and privacy of data is an area which local companies will be working on.

References

- ASEAN Secretariat (1999). *Statistics of Foreign Direct Investment in ASEAN*.
- ASEAN Secretariat and ASEAN Academic Press (1997). *ASEAN Macroeconomic Outlook 1997–1998*.
- Asia Recovery Information Centre, Asian Development Bank. Ministry of National Planning and Economic Development. *Myanmar Telephone Directory and Official Yellow Pages*.