ICT of MYANMAR

Location

Myanmar is situated in Southeast Asia and is bordered on the north and northeast by China, on the east and southeast by Laos and Thailand, on the south by the Andaman Sea and the Bay of Bengal and on the west by Bangladesh and India. It is located between latitudes 09 32 N and 28 31 N and longitudes 92 10 E and 101 11 E.

Geography

The country covers an area of 677,000 square kilometers (261,228 square miles) ranging 936 kilometers (581 miles) from east to west and 2,051 kilometers (1,275 miles) from north to south, It is a land of hills and valleys and is rimmed in the north, east and west by mountain ranges forming a giant horseshoe. Enclosed within the mountains barriers are the flat lands of Ayeyarwaddy, Chindwin and Sittaung River valleys where most of the country's agricultural land and population are concentrated.

Population

The Union of Myanmar is made up of 135 national races, of which the main national races are Kachin, Kayah, Kayin, Chin, Bamar, Mon, Rakhine and Shan. Population of the country is estimated at 56.5 million (July, 2009). The population is more than 70 percent rural; most of the rural areas are actually agricultural villages.

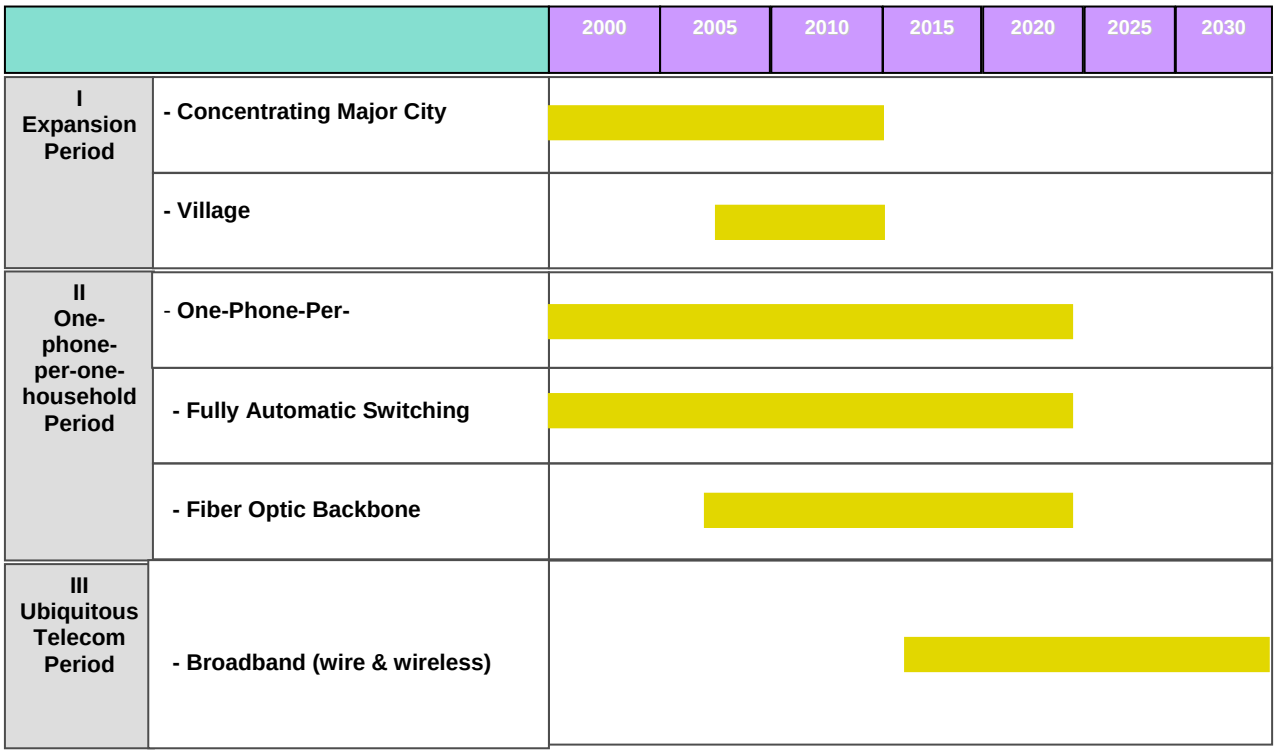
Religion

The main religions of the country are Buddhism (89.2%), Christianity (5.0%), Islam (3.8%), Hinduism (0.5%), Spiritualism (1.2%) and others (0.2%). Religious intolerance or discrimination on grounds of religion is nonexistent in the Union of Myanmar throughout its long history.

Gaps for ICT access:

1. National Objectives in ICT

Since 2000, Myanmar implement according to ICT master plan. There are three period included as (I) Expansion Period, (II) One phone per one household period, (III) Ubiquitous period.
In the Expansion Period we are focus on Major Cities and Villages to give telecommunication services by 2010.
In the One phone per household period we focus to deploy fiber optic backbone and to do fully automatic switching system by 2020.
The ubiquitous period would be start after 2010 using with broadband wire and wireless access networks and till 2030.



2. Milestones

In 1861, the first telegraph lines were established.
In 1884, the telephone services started and there were about 1300 lines in Yangon.
In 1912, The HF radio station established for overseas communication.
In 1956, a project called Yangon Automatisation was launched with 4 crossbar switches in Yangon and completed in 1962.
In 1960, the first low capacity microwave transmission system was introduced in delta area.
In 1978, the first telecommunication development project was launched and that project comprised crossbar automatic exchanges, analogue microwave system, 2 national transit crossbar exchanges, standard B earth station with one international gateway switch and one telex switch.
In 1985, the second telecommunications development project was launched and that project comprised digital electronic exchanges and microwave system.
The above two of telecommunication development projects contributed significant telecommunication services for the promotion and strengthening of the socio-economic situation of the country.
In 1987, the projects for the eight provincial towns and the establishment of standard A satellite earth station and new international gateway switch were initiated but those projects were suspended in 1988.
We noted that development in telecommunication sector truly supports the growth in economy, boosting up of the productivity, accelerating of industrial activities, improvement in agriculture outputs, greater transportation efficiency and social equity.
In 1990, Domestic satellite system (SCPC) was established for remote and border area.
In 1993, Cellular mobile phone system (Analogue APMS 800) was established.
In 1994, International and national electronic transit switch and the standard A satellite earth station was established.
In 1995, WLL radio telephone system was introduced.
In 1996, Digital AMPS cellular system and DECT radio telephone system were introduced.

In 1997, SEA-ME-WE 3 submarine cable system, X.25 e-mail system and CDMA cellular system were introduced.
In 1998, VAST system of domestic communication was established for remote and border area.
In 1999, dial-up access system for internet and e-mail was established.
In 2001, GSM cellular system was deployed.
In 2004, Advance communication project was launched and the project comprised IP satellite communication system, VoIP system, data communication system.
In 2005, ADSL and optical access system for internet and e-mail were established.
In 2006, new International and national electronic transit switch was established.
FTTP access system was introduced.
In 2007, Domestic satellite system (SCPC) was terminated.
GMS project was launched and the project comprised soft switch, trunk gateways, Access Gateways, IP metro network, CATV system, Digital switches, optical fiber transmission system, microwave transmission system .
In 2008, National Gateway for Internet and IXP was established. Myanmar-China cross border optical fiber link, Myanmar-Thailand cross border optical fiber link, Myanmar-India cross border optical fiber link was commissioned.
In 2009, WCDMA and McWill broadband wireless access system was introduced.

3. Major ICT initiatives

The IP Backbone project (10 GE) is launching for the route along Yangon-Nay Pyi Taw-Mandalay-Ya Da Nar Pon by 2010.
New microwave links projects and optical fiber links projects for priority regions.
The second Myanmar-Thailand cross border optical fiber link project by December, 2009.
GSM and CDMA cellular system expansion project by 2010.
Machine translation project is cooperating with Myanmar Computer Federation.
Banking network project is launched by 2010.
Implement the GMS IS project.
Cooperate with IAI.

4. Main Gaps and Problems

Regarding to expand ICT access the main problems are lack of electricity and awareness of ICT products.

5. Data privacy and cyber-security

Regarding to data privacy and cyber-security, the policies are under study.

6. Profiles of people without access

In term of social and economic condition: awareness of ICT products.
In term of geography: lack of electricity

ICT Infrastructure

The ICT infrastructure is the means of basic telecommunications services as well as the essential prerequisite for e-Commerce, e-Government and e-Learning. In other words, without an adequate ICT infrastructure, the whole ICT sector will not be able to achieve their goals. As

the ICT infrastructure requires high-tech equipments and personnel, its impact on economic development is also very critical.

7. Telecommunication Technology

Integration of radio or satellite links and mobile access network telecommunication technology can be used the best for expanding ICT access in currently under-serviced and un-connected people in our country.

8. Difficulties and obstacles

Access terminal costs, access cost, operation cost and spare parts may become major difficulties and obstacles in providing ICT access in the un-connected and under services areas.

9. National Telecommunications Network

Our national telecommunications network comprise of optical fiber network, digital and analogue microwave network, mobile networks, VSAT and ip satellite networks, WiMax access network, WiMax Backhaul, copper access networks, fiber access networks, TDM switches, soft switch, access gateways, trunk gateway, Internet gateway, national and international switches and gateways, Routers, STM technology, WDM and DWDM technology, IP network technology.

10. Access of current and future demands for ICT services

We are using two phases for accessing the level of current and future demands for ICT services in the un-connected and under-serviced areas as following,

(a) Phase 1

Satellite technology will be used for long distant communication and mobile network or wireless network be used for user access.

(b) Phase 2

Microwave or optical fiber will be deployed instead of the satellite link and cable network may be introduced to that areas with mobile network or wireless network.

11. ICT Regulations

ICT regulations will allow the private sector to do as service provider, telecom operator, and investor. Now in 2009, Ya Da Nar Pon Company is a first private company who is allowed to do telecommunications service provider in Myanmar.

预览已结束，完整报告链接和二维码如下：

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