

# Mongolia

Baljin Narantsetseg

.mn

## Overview

Mongolia lies in the northern part of the Central Asian Plateau between the meridian of 87°44' and 119°56' eastern longitude and in latitudes 52°09' and 41°35' north. The distance between the country's westernmost and easternmost points is 2,392 kilometres (1,486.6 miles), and 1,259 kilometres (782.5 miles) between its northernmost and southernmost points. Mongolia has a total surface area of 1,566,500 square kilometres (973,586 square miles) spread over three time zones, the sixth to the eighth, starting from the prime meridian 0°.

The population is about 2.44 million,<sup>1</sup> of which over 67 percent live in remote and rural areas. Mongolia has a population density of 1.5 persons per square kilometre, one of the lowest in the world. The capital city, Ulaanbaatar, accounts for approximately 32 percent of the total population.

Mongolia borders the Russian Federation and the People's Republic of China. It is a country with a remarkable variety of scenery. Tall and eternally snow-capped mountains stand next to vast hilly plains covered with highland plants and coniferous forests. There are also deserts and semi-deserts, which contrast sharply with numerous clearwater lakes found elsewhere in the country.

Administratively, the country is divided into 21 *aimags* (provinces) and more than 360 *soums* (counties).

Between 1924 and 1990, Mongolia was a one-party state and had a centrally planned economy. Its first democratic election was held in July 1990, which established a parliamentary republic.

There are more than 683 primary and secondary schools and 172 universities or higher education institutions in Mongolia. The literacy rate is 89.5 percent.<sup>2</sup>

## Content

Mongolian is the national language. It is one of the languages of the Mongolian subgroup of the Altaic group. The history of the Mongolian language is long and complex. Its development can be divided into three periods: ancient, middle and contemporary.

## Print media

There are 995 newspapers and periodicals registered with the Ministry of Justice at present. Most of them are privately owned and concentrated in Ulaanbaatar, the capital city. There are five daily newspapers, three English language weeklies and hundreds of small newspapers published at different frequencies.

The *Law on Information Freedom*, adopted in 1998, led to liberalisation of the state monopoly in the mass media sector.

The daily newspapers with the largest circulation are the *Odriin Sonin*, *Zuuny Medee*, the privately owned and independent newspaper *Onoodor*, *Seruuleg*, the local government paper *Ulaanbaatar* and the party newspaper *Unen*. The state news agency, MONTSAME, produces domestic and foreign news for all *aimags*, cities, government institutions, companies, the press and other mass media.

Online news in English includes EDN (E-mail Daily News) distributed only in the form of e-mail and Bizmongolia.mn, a business weekly distributed via e-mail to subscribers and available for free at <<http://bizmongolia.mn>>.

## Broadcasting

Radio broadcasting started in 1934 and national television broadcasting was launched in 1967.

The Mongolian National TV and Radio is the only broadcasting station that covers the entire country. There are another four local television stations: Eagle TV, Channel 25 and UBS TV in Ulaanbaatar and UBS RGB in Darkhan. There are smaller regional television stations in all the *aimags*.

There are 48 FM radio stations in the country. Out of this total 13 stations are based in Ulaanbaatar and there is at least one regional station in each of the *aimag* centres.<sup>3</sup>

There are five major cable television providers – Hiimori, Sansar, SuperVision, Manai Delgets and Minii Mongol – operating in Ulaanbaatar and several others in the four main cities. Cable television is provided to more than 80,000 households. Two companies have begun wireless distribution of programming similar to that found on cable television.<sup>4</sup>

## World Wide Web

Mongolian Internet content is characterised by its bilingual nature in Mongolian and English. According to a survey by InfoCon, there are about 1,000 active websites operating under the “.mn” domain hosted on local ISPs’ servers. Of this total, 10 percent belong to the government, 14 percent to the educational sector, 61 percent to the business community, 13 percent to NGOs, and the rest to individuals. Half of the websites are published in the Mongolian language.

These websites are hosted by 35 web servers<sup>5</sup> supported and managed by local ISPs. About 22 percent of the web servers run on the Linux operating system, 10 percent on Solaris and about 60 percent on Windows NT/2000. Hundreds of other Mongolian websites are hosted by overseas web servers under the “.com” domain.

An analysis showed that only 10–15 percent<sup>6</sup> of the websites were updated. Nearly all content is developed for information purposes (similar to information found on printed brochures). Only a few sites have interactive or catalogue-based services.

## Specialised information networks

The Mongolia Civil Aviation Authority operates a VSAT X.25 network connecting Ulaanbaatar with 20 provinces. This is a private network that provides support to air traffic control, access to passenger and air freight databases, and other operational support services required by national and international airline companies.

SITA-Equant provides services to local and international airline ticketing offices in Mongolia. It not only connects to airports and airline offices, but also supports the travel industry’ online flight reservation and ticketing systems.

The Mongolian Hydro Meteorological Research Institute has a nationwide X.25 network for collecting and disseminating basic weather forecasts to government agencies and the public.

## Internet in education

According to statistics from the Ministry of Education, Culture, Science and Technology, 506,000 children attend the 683 primary and secondary schools, 95 of which are located in Ulaanbaatar and the remaining 511 in the provinces. There are about 740 PCs in Ulaanbaatar schools and 770 PCs in rural schools. By 2000, 55 schools in Ulaanbaatar and 8 provincial schools had been provided with basic Internet e-mail access. One PC is available for every 333 school children, and computer availability across all schools is 2.4 PCs per school.

## Mongolia facts

**Total population:** 2.4 million<sup>a</sup>

**Rural population as a percentage of total population:** 67.0%<sup>a</sup>

**Key economic sectors:** Animal husbandry, mining, cashmere production<sup>a</sup>

**Literacy in the national language(s):** 89.5%<sup>a</sup>

**Telephone lines per 100 inhabitants:** 5.18<sup>b</sup>

**Internet hosts per 10,000 inhabitants:** 0.63<sup>b</sup>

**Computer ownership per 100 inhabitants:** 1.64<sup>c</sup>

**Internet users per 10,000 inhabitants:** 123.0<sup>c</sup>

**Cell phone subscribers per 100 inhabitants:** 8.84<sup>c</sup>

**Number of websites in the national language(s):** 500 (estimated)<sup>d</sup>

**Number of websites in English and other languages:** 1,000 (estimated)<sup>d</sup>

**Internet cafés/PC gaming centres/public telecentres per 10,000 inhabitants:** 0.31 / 0.35 / 0.02<sup>e</sup>

**National bandwidth within the country:** 2 Mbps<sup>f</sup>

**National bandwidth to and from the country:** 10 Mbps<sup>f</sup>

**Ratio of incoming to outgoing Internet traffic volume:** 60:40 (estimated)<sup>f</sup>

### Sources:

- (a) National Statistical Office (2001). *National Statistical Year Book*. Ulaanbaatar.
- (b) ITU (2002). *Asia-Pacific Telecommunication Indicators 2002*. Geneva.
- (c) InfoCon Co. Ltd. (2002). *Report on E-Readiness Assessment of Mongolia, Mongolia Development Gateway Project*. Ulaanbaatar.
- (d) InfoCon Co. Ltd. (2001). *ISPs in Mongolia*. Ulaanbaatar.
- (e) InfoCon Co. Ltd. (2002). *Internet Cafés and Computer Gaming Centers*. Ulaanbaatar.
- (f) InfoCon Co. Ltd. (2002). *Mongolia Internet Exchange*. Ulaanbaatar.

Internet and computer penetration in colleges and universities is growing. The total number of PCs found in these institutions is more than 5,000,<sup>7</sup> 70 percent of which are allocated to training or laboratory research activities.

Currently, 15 universities and colleges are connected to the Internet via a high-speed wireless network, and 40 secondary schools have dial-up access to the Internet through Erdemnet.

## Internet in libraries

Ten libraries have e-mail access, eight of them in *aimags* and two in Ulaanbaatar. The Ulaanbaatar Central Metropolitan Library is connected to the Internet via a 64 Kbps leased line, and it has established a website to provide online library services.

## Important local sources of national content

### **MN Domain Registry** <<http://www.nic.mn>>

The MN Domain Registry makes domain names which were previously inaccessible, available to customers. On this website, one can search to see if a domain name is available. If it is, one can register the name immediately online and activate it within one business day.

### **Government of Mongolia** <<http://www.pmis.gov.mn>>

This is the website of government organisations in Mongolia. More than 20 ministries and agencies provide online content here in the Mongolian and English languages.

### **State Ikh Hural** <<http://www.parl.gov.mn>>

This is the website of the Parliament of Mongolia.

### **Office of the Prime Minister of Mongolia**

<<http://www.open-government.mn>>

The Open Government Website, managed by the Prime Minister's Office, aims to improve and strengthen communication between the government, the private sector and people. Government officials in legislative, executive and judicial branches use the website in multiple ways, such as participating in discussions on topics of interest, answering questions and receiving comments.

### **Foreign Investment and Foreign Trade Agency (FIFTA)** <<http://www.investnet.mn>>

FIFTA is the government agency responsible for the promotion and facilitation of foreign direct investment and foreign trade in the country. FIFTA's One Stop Service Centre provides information related to investment opportunities and incorporation procedures for companies. FIFTA issues a Certificate of Foreign Invested Company after the necessary applications and supporting documents have been submitted and accepted. It also helps investors obtain official permits and documents required for operating their businesses, including multiple visas and permanent residency permits. FIFTA collects reliable and comprehensive information on investment opportunities in Mongolia and maintains a database structured according to countries and sectors.

### **Mongolia's National Tourism Centre (MNTC)**

<<http://www.mongoliatourism.gov.mn>>

MNTC was established in 1999 to support the development of tourism in Mongolia. As the government's implementation and promotion agency for tourism policy, MNTC aims to develop Mongolia as a competitive tourism region. The Mongolian Tourism Board, hosted by MNTC, assists by providing information and advice, as well as facilitating and coordinating tourism development in Mongolia.

### **State Property Commission** <<http://spc.gov.mn>>

This site contains a wide range of information about the privatisation process of state-owned companies in Mongolia, including privatisation legislation, detailed information on companies subject to privatisation, etc.

### **National Statistical Office of Mongolia (NSO)**

<<http://www.nso.mn>>

NSO has published its own homepage on the Internet since 1998. It provides users free access to general information. Statistical data is disseminated mainly in the form of printed material and some via electronic media. Statistical data is published at different time intervals depending on the content and purpose. An increasing number of publications are bilingual in Mongolian and English.

### **Mongolia Development Gateway**

<<http://mongolia-gateway.mn>>

This is an interactive portal for information on sustainable development and poverty reduction. It provides a space where the government, private sector, civil society, academia and the international communities can find and contribute knowledge resources on key development issues of Mongolia, as well as share experiences, solutions and opportunities. Guides and advisors for a particular topic, or focus, work with their communities to highlight the most useful resources and encourage users to submit their own resources. Registered users can submit content on a topic or focus and receive updated e-mail alerts relevant to specific topics or focuses of their interest. Users can also interact with each other and provide comments on a particular resource or subject. These resources are available in both Mongolian and English.

### **Web-based Distance Education in Mongolia**

<<http://www.elearning.mn>>

This website is published by the Web-based Distance Education in Mongolia project supported jointly by the International Development Research Centre (IDRC) of Canada and the Ministry of Education, Culture, Science and Technology.

The aim of the project is to introduce selected Mongolian institutions to processes of research, development and

experimentation with web-based instruction methods and technologies for distance education. The project will investigate web-based instructional technologies, pedagogical methods and organisational solutions for distance education in Mongolia and will help build capacity so that more technology choices are available for the implementation of a nationwide distance education system. A parallel aim of the project is to encourage and facilitate the education authority in formulating a vision and strategic plan for technology-based distance education under the national education policy framework.

**Mongolia Online** <<http://www.mol.mn>>

This website by Datacom Co. Ltd <<http://www.datacom.mn>> is a good guide to Mongolia. It provides links to various local websites. Datacom is the premier IT company in Mongolia providing services such as web hosting, web and mail servers, e-commerce and e-payment systems, to support businesses and organisations in running their Internet-based activities. The website is in Mongolian and English.

**Mongolia Internet Exchange (MIX)**

<<http://www.mix.mn>>

MIX is a place for ISPs to interconnect and exchange IP traffic with each other at a national level. This exchanging of traffic is commonly known as “peering”. MIX, an independent exchange, was launched in April 2001 by InfoCon Co. Ltd <<http://www.infocon.mn>>, one of the main IT consulting companies in Mongolia. Currently, there are six ISPs connected to MIX. The website is published in English.

**MagicNet Co. Ltd** <<http://www.magicnet.mn>>

MagicNet is an Internet and value-added services provider in Mongolia. It is the first ISP founded in 1994. MagicNet has its roots in providing e-mail services to the Mongolian community and has evolved over the past decade to meet the continuing and developing needs of Mongolia’s commercial, government, academic and social sectors. MagicNet offers a range of integrated solutions, products and services and is the largest independent communications company in Mongolia.

**MobiCom Corporation** <<http://www.mobicom.mn>>

MobiCom Corporation was established in 1996 as the first Mongolian cellular phone service company. Its mobile network system uses GSM technology. The domestic short message service (SMS) was introduced in 2000 and international SMS will be introduced soon.

**Mongolian Stock Exchange (MSE)** <<http://www.mse.mn>>

MSE was created in 1991 and operated as a mechanism of voucher distribution (blue coupon privatisation of large

enterprises) until 1995. Since then, it has assumed the role of a regular stock exchange. Currently, MSE performs duties such as registration of company shares under privatisation, deposit, trade, settlement, providing public information, and intermediation in shareholding companies to distribute dividends and to assist them in organising meetings, etc.

**Mongol News Co. Ltd** <<http://www.mongolnews.mn>>

Mongol News is the first independent Mongolian media group. Established in 1996, the company operates a media network that accounts for a significant part of the mass media market. The group publishes *Onoodor*, a national daily newspaper; *Weekend*, *Onoodor*’s weekend edition; the *UB Post*, an English weekly newspaper; *Tavan Tsagarig* (The Five Rings) sports newspaper; *Bi Bi Bi* (Me-Me-Me), a children’s newspaper; Channel 25, a television station; and FM-107.

**MONTSAME Agency** <<http://www.montsame.mn>>

This state news agency was founded in 1921. It produces domestic and foreign news for all *aimags*, cities, government institutions, companies, newspapers and other mass media organisations. It also issues domestic news in English and Russian languages to foreign embassies in Ulaanbaatar. MONTSAME receives news from Reuters, Xinhua (China), ITAR-TASS and RIA Novosti (Russia), Yonhap (South Korea) and Press Trust of India. The agency publishes the English weekly newspaper the *Mongol Messenger*, the Russian weekly *Novosti Mongolii*, and *Humuun Bichig*, a weekly newspaper set in the traditional Mongolian script. The agency also issues the 20-page daily bulletin *Yortontsiin Medee* (World News).

**Online services**

The total number of active Internet subscribers, including both corporate and individual accounts, exceeded 9,000 by 2001. Current trends indicate that this total will grow by about 8–10 percent annually.<sup>8</sup> The estimated number of Internet users probably exceeds 30,000. Of this total, 60 percent are users from organisations and 38 percent are households or individual users. Users from Ulaanbaatar account for 95 percent of the total.

There are about 1,000 names registered under the domain “.mn”. These are divided into the following categories: individuals (20 percent), business entities (60 percent), government (10 percent), NGOs (6 percent) and others (4 percent). About 60 percent of “.mn” domain names are registered by international or overseas organisations. Domain name registration is fully automated and requires no human involvement in the registration and payment procedures.<sup>9</sup>

## Distance education and e-learning

There are several ongoing UNESCO-supported grant projects for radio-based informal education. In addition four interdisciplinary teams are implementing the pilot project on web-based distance education. These projects were scheduled for implementation over 2001–2003 with support provided by IDRC.

The World Bank had established in 2002 Global Development Learning Network centres equipped with video- and audioconferencing facilities for training government officials.

## E-commerce

Detailed data on e-commerce in Mongolia is not available at this time. However, the following activities in e-commerce have been observed.

B2C e-commerce is being used experimentally within a few closed groups. The basic challenges to B2C e-commerce development in the country are related to a lack of solutions for electronic and payment transactions. These are still under development. The legal environment for e-commerce and e-banking has also not been established, nor are there readily available distribution and merchandise delivery systems.

Despite these, some progress has been achieved during the past two years in e-commerce and e-banking. Three companies are providing debit/credit card transactions over the Internet and some companies are trying to introduce e-commerce services. Credit/debit card services are available at several shopping centres, banks and hotels.

The Golomt Bank of Mongolia introduced e-banking services to the public in October 2002. Computer and computer-related equipment retailers, booksellers and florists have also begun to sell their products over the Internet.

A few Mongolian companies are engaging in B2B e-commerce via the Internet. Some freight forwarding and shipping companies are now starting to integrate schedules, catalogues and other B2B integration models to support their e-commerce applications for logistics systems on the Internet.

Most companies using B2B e-commerce limit their trading to overseas companies only. No estimates were available at the time of writing of the value of trade concluded in this segment of the market.

## E-government

According to a survey conducted by the Working Group for the Assessment of the Government Information and Communications System,<sup>10</sup> the central and local offices of the government are adequately equipped with computers and telephones. The central offices of the ministries and government agencies based in Ulaanbaatar have been connected to the Internet, linked via LANs, and have

established internal and public websites. The websites of the ministries have been developed for the main purpose of disseminating information and not for delivering government services to citizens, nor for automating their internal administrative and management processes. In addition to the government agencies located in Ulaanbaatar, the offices in the major cities also enjoy e-mail and Internet access. However, the telephone and fax are still widely used communication tools between the central and provincial governments.

The use of computers within local government offices is limited to word processing and other office applications. Although Internet access is available in most *aimags*, e-mail is rarely used for communication or information exchange. Internet and simple messaging services are still not available at *soums* owing to limited development of the telecommunications infrastructure in these areas.

In 1997, the government implemented the ICT for Sustainable Human Development Programme with support from UNDP. The programme's objectives included increasing transparency and improving information dissemination within the government and between the government and the public. The Public Management Information System was created as a result of this project. However, this network has not met its expectations. The main reasons are that (a) no content was developed; (b) the users, government officials and staff are not prepared to share nor publish information; (c) it was LAN-based and enabled communication by e-mail only; (d) in rural areas, access to the network was almost impossible for the ordinary people, even though there were established points known as Citizen Information Centres set up at local government offices.

In 2001, the government made another commitment to e-government. With the support of USAID, the Office of the Prime Minister created a website called Open Government. This website enables the public to interact directly with government officers and to post online comments and feedback on draft laws and regulations prior to debates in Parliament. The initiatives are still in the early stages of implementation, and their results have not yet been evaluated.<sup>11</sup>

## ICT industries and services

### Telecommunications

Mongolia Telecom, the state-owned and operated telecommunication company, has been reorganised and modernised with South Korean investments. It is expanding its operations and capability. Mongolia Telecom provides basic telecommunications services, such as international and domestic calls, Internet access, television broad-casting, and leasing of digital circuits. Korea Telecom acquired 40 percent of its shares through open international competitive bidding;

the Mongolian government owns the remaining shares. Communications network assets are owned by the government and leased to Mongolia Telecom.

The Mongolian basic telecommunications network consists of 3,100 kilometres of analogue lines as well as approximately 900 kilometres of digital microwave links connecting Ulaanbaatar to *aimag* centres. The switching stations have a total capacity of 143,857 telephone lines, with more than 122,120 lines already in service. More than 93.7 percent of the total existing switching capacity and 30 percent of the transmission network are digital. Three towns, 13 *aimag* centres and one *soum* centre are linked using VSAT systems. The achievements accomplished so far in building the telecommunications infrastructure may be seen in the successful installation and operation of digital switches in 15 of the 21 *aimag* centres.

The other telephone service provider is the Mongolian Railway Company, a state-owned joint venture with Russia, offering domestic and long-distance telephony for users located along the railway tracks. The railway network had a total capacity of 15,000 lines by the end of 2001. It interconnects with Mongolia Telecom and mobile phone operators via fibre optic cable.

The first cellular operator, MobiCom, started five years ago and has achieved tremendous success in attracting subscribers and generating revenue. Today, there are two cellular operators MobiCom (a private joint venture with Japan) and Skytel (a private joint venture with South Korea), providing GSM 900 and CDMA services in Ulaanbaatar and six other cities and *aimags*. Both operators provide basic cellular phone services, including wireless Internet using (WAP) and messaging. The number of mobile phone subscribers in Ulaanbaatar exceeds the total number of fixed-line subscribers of Mongolia Telecom.

Despite the achievements of the country's overall telecommunications infrastructure, the network in rural areas remains poorly developed.

### Internet companies

Private companies are playing a dominant role in the development of Internet and Internet-based applications and services. Datacom introduced the first Internet e-mail service to the public in 1994. Full Internet services were introduced in January 1996. Seven ISPs are operating in Mongolia at the time of writing. Five of them are private companies. There is a local ISP operating in Erdenet, the second largest city in Mongolia.

ISPs provide services such as dial-up access, e-mail, web hosting, dedicated leased-line service via fibre optic cable, satellite, xDSL, VOIP, fax-over-Internet, and e-commerce applications and services. The total international bandwidth of the Internet is about 10 Mbps.

The Mongolia Internet Exchange (MIX) went into service in April 2001. Six ISPs are connected to MIX. It is a collaborative initiative among all the ISPs to locally exchange Internet data that originates and terminates within Mongolia. The independent non-ISP manager InfoCon Co. Ltd. initiated and implemented this effort and manages it today. MIX plays an important role in helping to develop the online infrastructure of Mongolia.

### Internet cafés and public Internet access centres

There are more than 70 Internet cafés and 10 public Internet access centres operating in Mongolia. The Internet cafés offer to the public shared access to the Internet, fax-over-IP and VOIP services.

### Hardware and software

Official statistics are not available for the number of personal computers installed in Mongolia. InfoCon Co. Ltd. estimates that there are approximately 50,000 computers in use, and this number is expected to increase by 8–10 percent a year. The National Statistical Office had estimated differently that about 80,000 computers were in use by 2000 and that 3.8 percent of this total were “in private use”.

Computer hardware distributors and retailers have helped to establish a market presence for well-known brands such as Dell, Hewlett-Packard Acer, Packard Bell and others. These branded computers are sold through local distributors. More than 90 percent of the computers sold are bundled with the Microsoft operating system and applications. The Mac, Linux and UNIX systems are rarely used (less than 3 percent). More than 30 software companies serve the local market providing customised applications, which include financial-accounting, banking, insurance and customer service systems.

## Example of a key initiative

### National IT Park

The IT park project started with the support of the Korean government and will be completed by 2005. The main goal of this project is to promote the production of IT goods and services for the domestic market as well as for export.

## Enabling policies

In May 1996, Parliament adopted the Concept of Development of Mongolia which defined the key strategies for national development over the next 15–25 years. In December 1998, the Minister's Council of the Ministry of Infrastructure approved and adopted the Mongolian

Telecommunications Sector Policy Statement for the period leading up to 2010. The policy statement spelled out the objectives for improving the quality and increasing the types and coverage of information and telecommunications services for the purpose of meeting increasing socioeconomic demands and accelerating the development of other sectors of the economy.

In February 2000, Parliament adopted the Concept on Information and Communications Technology Development of Mongolia up to 2010. The mission of this concept is “to develop a society based on knowledge and intellectual potentials and to develop the quality of people’s lives”. The goal is to ensure accessible and flexible information structures which promote dynamic and sustainable development in an open and fair society, with all sectors of society and the economy harnessing the potential of the information and knowledge revolution to improve the health, wealth and well-being of all citizens.

The National Seminar on the Development of Mongolia Information and Communication Technology was held on 7 February 2001. This event led to the formation of the National Committee for ICT.

The first ICT sector donors’ meeting was held on 30 January 2002. The meeting had two objectives: (1) to outline the current situation, issues and strategic options of the ICT sector of Mongolia in the form of a draft Information Communications Technology (ICT) Strategy and National ICT Action Plan; and (2) to take stock of ongoing work in the ICT sector and to integrate national strategies and donor programmes in ICTs for development into a matrix outlining future cooperation and priorities.

Mongolia has achieved significant progress in ICT development as a result of foreign investment and cooperation with technically advanced nations. The ICT sector’s contribution to national economic development is increasing rapidly. For example, the sector accounted for only 2.0 percent of GDP in 1995, but this share rose to 5.7 percent in 2000. In the near future, the government will liberalise and privatise the communications sectors in order to ensure that free and fair market conditions prevail in these sectors.

The government dedicated 2002 as the Investment Year. It also organised “Mongolia: Investors Forum 2002”, which included an ICT sector subconference.

## Regulatory environment

The regulatory framework for the ICT sector presents significant challenges to policy makers. The existing framework is relatively complex, with overlapping functions and responsibilities for telecommunications.

There are no formal regulations for the Internet. Any Internet regulatory framework will need to cover an extremely broad range of activities and issues. These may include the quality of services provided, country top-level

domain name distribution procedures, information privacy issues, connectivity requirements, taxation and e-commerce. This is an urgent task awaiting the attention of the ICT National Committee and the government.

### ICT authorities

**National Committee for ICT:** This was established in April 2001 and comprises of representatives from the government, NGOs and the private sector. The committee is headed by the Prime Minister and is an advisory body to the government.

**Ministry of Infrastructure:** This is the main governmental body for the regulation of the ICT sector. Its role is to develop policies and undertake strategic planning and monitoring of the implementation of infrastructure projects.

**Communications Regulatory Commission:** This is the regulatory body for the telecommunications sector. It is responsible for interconnection regulation, tariff regulation and standards, and issuing of licences.

**Post and Telecommunications Agency:** This is the agency for implementing policies on post, broadcasting and telecommunications.

**State Inspectorate for Infrastructure:** This ensures compliance by business entities, organisations and individuals with the laws and standards of the country.

### Laws

The laws applicable to the ICT sector are the *Telecommunication Law 1995* (amended in October 2001), *Radio Frequency Law (1999)*, *Communications Regulatory Body’s Charter (2002)*, *Patent and Copyright Laws*, *Intellectual Property Law*, *Law on Technology Transfers*, and the *Law on the Status of the Mongolian Academy of Science* (see <<http://www.ict.mn/midas>>).

There are more than 100 laws related to business operations in Mongolia. The English versions of the major laws are available at <<http://www.investnet.mn/32laws.htm>>.

### ICT associations

**Mongolia Information Development Association (MIDAS):** An association of ICT experts from public, business, professional and academic communities in Mongolia, this NGO replaced the former National ICT Council. Its membership also includes people from the ICT authorities, educational institutions, private companies and donor organisations. It is funded by membership fees and various sponsors.

**MONITA:** This comprises 25 ICT member companies. Its main objective is to strengthen ties between Mongolian and foreign IT companies.

**Mongolia Development Gateway (MnDG):** This NGO encourages a broader perspective on ICT and its role as a tool for the development of the Mongolian society and economy. Its steering committee consists of representatives from the government, private sector, educational institutions, academia and international organisations. It networks with country gateways in more than 40 countries.

## References

- Academy of Sciences of Mongolia (1990). *Information Mongolia*. Ulaanbaatar.
- Globe International. Mongolia <<http://www.globeinter.com>>.
- Government Secretariat (2001). *Study Report of the Working Group for the Assessment of the Government Information and Communications System*. Ulaanbaatar.
- InfoCon Co. Ltd. (2001a). *Cross-border E-Services*. Ulaanbaatar.
- InfoCon Co. Ltd. (2001b) *ISPs in Mongolia*. Ulaanbaatar.
- InfoCon Co. Ltd. (2002a). *E-Readiness Assessment of Mongolia 2001–2002, Mongolia Development Gateway Project* <<http://www.mongolia-gateway.mn>>. Ulaanbaatar.
- InfoCon Co. Ltd. (2002b). *Internet Cafés and Computer Gaming Centres*. Ulaanbaatar.
- Ministry of Education, Culture, Science and Technology (2001). *Report by the Ministry of Education, Culture, Science and Technology, 2001*. Ulaanbaatar.
- Ministry of Infrastructure (2001). *Statistics on Infrastructure*. Ulaanbaatar.
- Ministry of Infrastructure (2002). *Mid-Term Strategy and Action Plan for the Development of the ICT Sector in Mongolia*. Ulaanbaatar.
- Ministry of Infrastructure. *Infrastructure Objectives Contained in the Government Action Plan 2000–2004*. Ulaanbaatar.

- Mongolia Information Development Association (2002). *Information and Communications Technology Sector Profile*. Ulaanbaatar.
- Narantsetseg, Baljin (2000/2001). *ISP Business Development in Mongolia*. Ulaanbaatar.
- National Statistical Office (2001). *National Statistical Yearbook, Mongolia, 2001*. Ulaanbaatar.
- Parliament of Mongolia (2000). *Concept on Information and Communications Technology Development of Mongolia up to the Year 2010*. Ulaanbaatar.
- UNDP (1999–2000). *2000–2003 Action Plan for ICT Development*.

## Notes

1. *National Statistical Yearbook* (2001).
2. Ibid.
3. Ministry of Infrastructure (2002).
4. Communications Regulatory Commission (2002).
5. InfoCon.
6. InfoCon (2001a).
7. Ministry of Science, Technology and Culture (2001).
8. Narantsetseg (2000/2001).
9. MN Domain Registry <<http://www.nic.mn>>.
10. Government Secretariat (2001).
11. InfoCon (2002a).