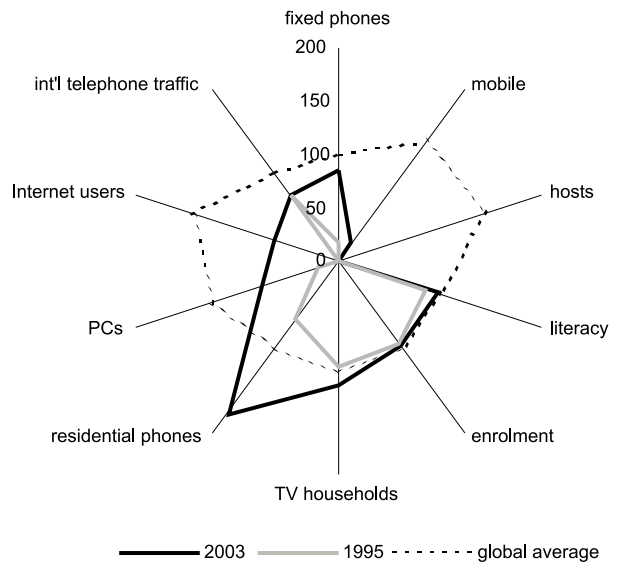*.ir*

Iran

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Overview

Geography

Iran has a land area of 636,296 square miles or 1,629,807 square kilometres, which makes it the 16th largest country in the world. It is bordered by the Caspian Sea, Armenia, Azerbaijan and Turkmenistan to the north, Turkey and Iraq to the west, the Persian Gulf to the southwest, the Oman Sea to the south, and Pakistan and Afghanistan to the east. More than half of the country is mountainous, one-fourth is desert and the rest is cultivated. Iran has four distinguishable seasons, and temperature differences of over 40°C have been recorded between different parts of the country, giving it much climatic diversity. Mount Damavand, part of the Alborz mountain range with a height of 5,671 metres, overlooks the capital city of Tehran, which has a population of 12.5 million. Iran's unique geographical position in the Middle East and along the Silk Road, its free access to waterways, its special climatic conditions, and its rich natural reserves, including gas and oil, give it an edge over other countries.

Iran has a population of 66.4 million that is growing at the rate of 1.5 percent. Life expectancy is 69.3 years. The population is very young with 60 percent under 24 years of age and 20.5 percent between 15 and 24 years. The urban population totals 41 million, while the rural population numbers about 25.4 million. Ethnic groups living in Iran include the Turk, Fars, Kurd, Lore, Baluch, Arab, Turkman and Armenian.

Farsi (Persian) is the national and official language of the country. Turkish is also commonly used in the northwest provinces of Eastern and Western Azerbaijan, and Arabic is spoken in parts of Khuzestan in the southwest. English is taught as the second language in high schools, and as such the level of English literacy is relatively high.

Education in Iran is mandatory up to high school. Both public and private educational institutions are available. There are about 18 million students in schools and nearly 2 million in universities. Tertiary education extends to doctoral degrees. About 300,000–320,000 students graduate each year from university. In the past 18 years, close to 150,000 students in total have graduated from ICT and related courses.

Economy

Iran recorded a GDP of more than US$107.5 billion with an annual growth rate of 5.9 percent in 2002. The average annual growth rate was projected at 5.8 percent for the period 2002–2006. Iran is OPEC's second largest oil producer. It has approximately 9 percent of the world's total oil reserves comprising some 94 billion barrels. It also has the second largest reserve of natural gas in the world at some 812 trillion cubic feet. Iran's oil and gas industries require heavy investment and redevelopment. Some projects are being developed on a "buy-back" basis, whereby foreign oil giants such as Totalfina Elf and Shell act as contractors to the National Iranian Oil Company. Oil exports account for around 80 percent of foreign exchange earnings. The government controls over 80 percent of the economy with the assistance of organisations such as UNDP.

The government has made the development of non-oil exports a priority. Traditionally, such exports have included carpets, pistachio nuts and dried fruit. Iran also possesses enormous mineral resources, including coal, copper, iron, zinc and gold, most of which have yet to be exploited. As a result, a number of processing industries have emerged, particularly steel. Iran is already the third largest producer of copper in the world.

Apart from being endowed with natural resources, the country possesses other attributes, including a broad domestic industrial base, an educated and motivated workforce, as well as a strategic geographical location that gives it access to an estimated 300 million people in the Caspian region, the Persian Gulf states and countries further east. The government is encouraging import substitution through joint manufacturing ventures with foreign companies

so as to update the country's technological base and the management skills of the private sector.

Among the various sectors, agriculture accounted for 16.8 percent of GDP in 2002, industry 32.3 percent, and services 50.9 percent.

The ICT industry is relatively new in Iran, but it is growing rapidly and is now acknowledged as a critically significant sector of the country. The ICT market in Iran was flourishing in 2003 while much of the world was experiencing a downturn in the sector. This market is estimated to be worth US$1.5 billion annually and remains largely unexploited by foreign companies. All factors considered, Iran is thus an attractive country for investment and outsourcing.

Infrastructure

Communication services started in Iran in 1889, and since then the country's telecommunications networks have kept pace with innovations in the industry. Apart from the incumbent Telecommunication Company of Iran (TCI), there are 28 provincial telecommunications operators in the country.

More than 2.37 million fixed telephone lines were activated in 2003, bringing the total to about 14.57 million lines throughout Iran.

More than 1.19 million mobile phones were activated in 2003 to bring the total to about 3.38 million across Iran. TCI has planned huge investments for upgrading GSM facilities and providing more services. The total number of mobile phones in use is expected to hit 10 million by 2007/2008. In the long term, TCI plans to have 12 million units in use, 2 million of which will be prepaid. Another 10 million units will be provided by private operators. Mobile services now reach 668 cities and 38,798 villages across the country.

Huge investments are being planned and made by TCI in extending the fibre backbone to connect all the cities in the country. Data and traffic are now carried on a combination of copper, fibre, satellite and microwave networks, among which DSL, E1 and satellite connections are popular. New fibre optic cables totalling 10,000 km were installed in 2003, bringing the total length of the fibre backbone to 25,853 km.

TCI's total investment in development and equipment in 2002 amounted to 61 billion rial (US$7.7 million). Its total investment in the fixed telephone network amounted to 663 billion rial (US$83.9 million).

Industries

Electronics and hardware

The electronics and hardware industry in Iran is active in the sectors of electronic appliances, microelectronics, computer hardware, telecommunications devices and smart cards. Iranian manufacturers are active in all these sectors. The main exporters to Iran are South Korea, Germany, France and Japan, with European companies mostly active in telecommunications devices. All the components used in the industry, except drives and chips, are produced domestically. Smuggling is a major problem, with all kinds of circuit boards, CPUs and RAM modules being illegally imported into the country.

Around one million PCs are sold annually. This market is worth about US$700 million and growing at an annual rate exceeding 30 percent. The electronics and hardware industry generates 0.5 percent of GDP. It has grown steadily over the past ten years and is expected to grow faster in the future with government support and enabling policies.

Internet

There are about 4.5 million Internet users in Iran, with the number growing by about 41 percent each year. More than 450 ISPs provide services to these users, most of whom use dial-up connections. Broadband services are available through some of the ISPs as well as TCI.

Networks

Iran's networking structure consists of LANs, VANs and VPNs. Ethernet LANs are popular, and structured cabling is used extensively. About 100 Iranian companies are active in providing network-related services, including network equipment import and manufacturing, network design and installation, and cabling. The market value of this sector is around US$70 million per year, with 25 percent annual growth.

Software

The software industry is active in providing financial solutions, manufacturing information systems, office automation, graphic and design solutions, engineering and scientific applications, and e-learning solutions. The government has included this industry as one of six new industries that it will focus on. Measures that it has adopted to boost the industry include supporting domestic production, providing financial backing for software companies, and awarding government outsourcing contracts to Iranian companies. There are more than 500 registered software companies – and many more unregistered groups – in the country. Eight of them have received ISO 9001 and TickIT certification, with others planning and working towards certification.

The focus on the digital economy has raised the demand for software, coming mostly from the government, industry and businesses. The High-Tech Industries Centre has proposed that 1 percent of the national budget be allocated

to software. International software companies are seeking partnerships with local software technology firms to exploit the domestic market, which is currently valued at around US$200 million, with a potential worth of US$500 million.

Regulatory environment

Preparatory work on the copyright law began in Iran ten years ago. The law does not protect foreign intellectual property at present, but this is set to change soon. The Software Copyright Law was passed by Parliament recently. It will protect all software produced in Iran; protection is expected to be extended to imported software products. Parliament also has given approval for the country to apply for WIPO membership.

Foreign investments in Iran are protected and guaranteed. The contract-awarding process is being amended to require all national ICT projects to be awarded to consortia comprising Iranian and foreign companies.

Regulatory bodies

Ministry of Information and Communication Technology

The main governing body of telecommunications in Iran is the Ministry of Information and Communication Technology, which was previously the Ministry of Post, Telegraph and Telephone. The change in name followed the redefinition of its mission, strategy and responsibilities, which was approved by Parliament in December 2003. The changes represented a fundamental shift of focus to the ICT industry. One of the major goals of the ministry is to break the existing monopoly and privatise the main telecommunications infrastructure of the country.

The ministry has the following general functions and responsibilities:

- Acting as the national body for ICT policy-making
- Setting standards and regulations as well as supervising the activities of the various communications sectors, including telecommunications, postal services, postal-bank services and IT
- Building and maintaining the communications infrastructure of the country
- Promoting and supporting the R&D and the use of ICT
- Governing the use of the country's radio spectrum and satellite orbits
- Protecting the radio transmission rights of the country.
- Protecting the security of postal mail, communication networks, as well as personal and organisational information
- Establishing rules and regulations for handling disputes and violations related to communications and IT

- Representing the government in international communications and IT unions and associations, as well as carrying out the terms of bilateral and international agreements

High Council of Informatics

The government bodies overseeing the software industry are the High Council of Informatics – which is headed by the President and is part of the Management and Planning Organisation – and the High-Tech Industries Centre, which is responsible for the industrial aspects and is part of the Ministry of Industries and Mines.

The High Council of Informatics has these responsibilities:

- Making IT policies and defining national IT strategies
- Expanding the IT development plans of the various sectors
- Making mid- and long-term plans for the expansion of fundamental and applied IT research
- Promoting the application of ICT

High Council of Space

The High Council of Space, headed by the President, has these functions:

- Utilising space and space technologies for peaceful purposes
- Protecting national space interests
- Employing space sciences and technologies for the country's economic, cultural, scientific and technological development

Other government bodies that are involved in ICT matters include the Ministry of Science, Research and Technology, the Ministry of Commerce and the Supreme Council of ICT.

Non-government organisations

There are two main private IT associations: the Iran Informatics Companies Association and the Informatics Society of Iran.

Iran Informatics Companies Association

The Iran Informatics Companies Association was formed with the primary objective of catalysing the growth of the ICT industry in Iran. It is financed mainly by contributions from its 600 members. The association aims to help Iranian ICT companies improve their level of product and service development, besides updating members with market and industrial information. It also works closely with government bodies in establishing regulations against software piracy.

Informatics Society of Iran

The Informatics Society of Iran was formed in 1980 to prepare the ground for the application of informatics through establishing scientific and technical standards, studying the impact of computer technology on society, and familiarising people with the concepts of informatics. It also strives to promote the science of informatics through education and research, collaboration between industry and research centres, and information exchange among experts.

Enabling policies

The National Iranian ICT Agenda, locally known as TAKFA, was initiated to promote the ICT sector of the country. The ultimate goals that the government hopes to attain through TAKFA are poverty eradication, ICT-centric development of the country, creation of new jobs, privatisation of public organisations, increased foreign investment and involvement, promotion of non-oil exports, and development of high-tech industries. To realise these objectives, the government will invest heavily in ICT in Iran within the approved framework of TAKFA. Provided for in the plan are specific budgets for ICT projects as well as changes to laws and regulations to allow the country's ICT needs to be served.

TAKFA will promote the development and application of ICT in various sectors: government (work automation, online services, e-democracy, etc.), commerce (e-commerce, e-banking, etc.), education (primary to tertiary level) and vocational training, social services and health, as well as culture (content in Farsi, the arts, etc.). It also aims to foster the development of small and medium enterprises in the ICT sector through initiatives such as technology parks and incubator schemes.

TAKFA's budget for the year ending March 2003 was US$1 billion. It was raised to around US$1.4 billion for the following year. This amount comprised US$130 million assigned directly to existing national ICT projects, US$60 million for job creation through ICT projects, and 1 percent of the development budget (worth around US$1.2 billion) that was allocated specifically to ICT projects.