China - Country Report

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Bridging information gaps through technology

I. Short presentation of the country

1. Population data

As of 1995, the total population of China is 1,211,210,000, among which 618,080,000 male (51.03%) and 593,130,000 female (48.97%), 351,740,000 urban (29.04%) and 859,470,000 (70.96%). National birth rate is 17.12%, death rate is 6.57%, natural growth rate is 10.55%.

2. Economic data (According to China Daily, May 6, 1997, US$-RMB exchange rate is 829.49:100)

As of 1995, the Gross National Product and is 5,727.7 billion RMB yuan, average annual growth rate during 1991-95 is 11.6%. Gross Domestic Expenditures is 5,945.3 billion yuan, average annual growth during 1991-95 being 26.5%, among which total consumption (resident and social) 3,496.2 billion yuan, total investment 2,358.7 billion yuan. Government revenue 624.22 billion yuan, government expenditures 682.37 billion yuan. Price index (Retail price index) 114.8% over the last year. Average salary 5,500 with an average growth rate of 5.8% during 1991-95.

3. Level of education

As of 1995, there are 1,054 universities with 2,906,000 students, 95,216 middle schools with 61,915,000 students, 668,685 elementary schools with 131,952,000 students1. There is a 9-year compulsory education system.

4. Literacy rate

The following data is for population of age 6 and over by educational level, based on the 4th National Population Census in mid 19901. See Table 1.

5. Languages spoken and written

China is a multiethnic and multilingual country in which over nine-tenths of the population are members of the Han ethnic group. Fifth-five other ethnic groups speak more than 80 distinct languages. Minority languages are spoken by only 7 percent of the population .

II. Library organisation, structure and statistics

According to the Directory of Major Chinese Libraries and Information Services , there are 2486 major libraries in China, in which 321 public libraries, 856 libraries of universities, colleges and schools, 431 libraries of Chinese Academy of Sciences, Chinese Academy of Social Sciences and other information services, and 878 libraries of China central government and affiliates to ministries.

III. Staff, professional and non-professional

In 1995, there are 420 Sci.-Tech Information Institutions above county level with 25,397 staff members (among which 14,478 are scientists or engineers), their total funds is 880.81 million yuan (590.33 are government appropriations), total expenditures is 840.76 million yuan.

IV. Librarianship training programmes

During 1949-1979, there were only 4 library schools in China. Now, there are 55 library schools all over China, among which are 24 with B.A. undergraduate programmes, 11 with M.A. postgraduate programmes and 3 with Ph.D. programmes .

V. Library services, activities and programmes

In 1995, there 2,615 libraries with 45,323 librarians in China. See Table 2. Libraries in China are providing reading, loan, interlibrary loan, Internet access, CD-ROM search, inquiry/reference, public lectures and seminars and other services.

VI. Book production

In 1995, there are 527 publishing houses and 12,399 book stores, with a total of 101,381 titles and 6,321,790,000 copies of books, 7,583 titles of magazines and journals, 1049 titles of newspapers.

VII. Future developments

Libraries in China are making efforts to use new technology to provide new services. The greatest problem is funds. We are trying to get more government budgets as well as to find other financial sources, such as charging services and enterprise donation, to increase librarians?income, buy more advanced equipment and develop library collections.

VIII. Any other comments relevant to the theme

China is a developing country and began to be open to the world in late 1970s. During the 20 years of rapid economic development, Chinese librarians have had the problems of income, budgets and IT shock.

Table 1: Literacy and education

Item	1990 (data)	%
University	6,140,000	0.62
Junior College	9,620,000	0.97
Professional School	17,280,000	1.74
Senior Middle School (3 years)	72,600,000	7.30
Junior Middle School (3 years)	263,390,000	26.50
Primary School (6 years)	420,210,000	42.27
Illiterate and Semi-Illiterate	204,850,000	20.61
Population of age 6 and over	994,090,000	100
Total population	1,130,510,000	

Table 2: Public libraries

Item	Provincial librarie	County libraries	Total
Collections (vols.)	84,900,000	126,630,000	328,500,000
Expenditures (RMB yuan)	154,810,000	252,850,000	740,800,000
New collections (vols.)	1,130,000	3,380,000	7,650,000
Seats	20,000	240,000	350,000

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IT in China - Country Report

I. IT Sales (See also Table I & II)

1. Total IT sales in 1996 were 92.4 billion RMB yuan, with an increase by 48% over the last year, which is much greater than the annual increase of electronic industry (22%) and the national economic growth (9.1%).

2. PC sales in 1996 were 2.03 million items, among which 40% were imported, 30% made in China, and 30% compatible. Among them, 80% were Pentium PCs.

3. Software sales in 1996 were 9.2 billion RMB yuan, with an increase by 35% over the last year. Among them, 70% were imported and 30% were made in China. There are about 200,000 software professionals, who are mainly working in such developed cities as Beijing, Shanghai, Shenzhen, Shenyang, Zhuhai, etc. .

4. Information services in 1996 were 12 billion RMB yuan.

5. PC amount in China: 5.3 million, about 4 PCs every 1,000 people. In 1996, family PC sales were 15% of the total PC sales .

II. Networking

1. Internet services have been developing rapidly since it became available a few years ago. There are now about 500,000 users, and the umber is increasing by 50-60% every month . There are more than 10,000 servers in China connected to the Internet . There are 4 main Internet services in China:

i. ChinaNet - Public Internet of China run by the Ministry of Posts & Telecommunications (MPT), covering 31 provinces, major cities and regions, with service stations in more than 200 cities, at a rate of 2 Mbps on the backbone networks11. MPT will soon radically reduce Internet service charges to 300 RMB yuan (US$36.14) for 70 hours on line each month7.

ii. ChinaGBN - China Gold Bridge Network, a Commercial Network, operated by MEI (Ministry of Electronic Industry), which began to be connected to the Internet (U.S., 256Kbps) and open to the public in 1996. It is a national economic information network based on a satellite backbone network and connected to 24 satellite substations in 24 major cities. It has more than 100 corporate users and 150,000 personal users (estimated to be 200,000 by the end of 1997) .

iii. CERNet - Chinese Education and Research Network, operated by THU (Tsinghua University) and BUCT (Beijing University of Chemical Technology) . It is connected by 5 leased lines respectively to U.S. (128Kbps and 2Mbps), Japan (64Kbps), Germany (64Kbps) and Hong Kong (64Kbps). It links about 100 key universities and colleges in China. Its users include more than 100,000 students and more than 30,000 teachers.

iv. CSTNet (formerly CASNet) - China Science and Technology Network, operated by CNC (Computer and Network Center, CAS - Chinese Academy of Sciences) and IHEP (Institute of High Energy Physics, CAS). All links are through fiber optic cables. It links about 100 key institutes under CAS. CASNet is now one of the component networks of the CSTNet, it covers about 30 research institutes under CAS with more than 20,000 researchers and professors in Zhongguancun area of CAS.

2. ChinaPAC (formerly CNPAC) - China National Public Data Network. ChinaPAC is intended to be the major public data network backbone in China. It covers all provincial capital cities of the Mainland China. ChinaPAC and its international link runs at 64Kbps backbone rate. It supports major CCITT X series protocols including X.25 and X.75. It also supports SNA, SDLC, 3270, DSP and BSC protocols. User links vary from 1200bps through 64Kbps. Users can connect to ChinaPAC through leased lines (X.25, 9.6K through 64K) or through dial-up (X.32, 9.6K; or X.28 1200/2400bps). In October 1993, the ChinaPAC began its early operations. BTA (Beijing Telecommunication Administration) is now managing the high speed fiber optic links among Beijing, Shanghai and Guangzhou. It is now connected with 44 data networks in 23 countries and regions, with 50,000 users (increasing by 10% every month).

III. Libraries

1. National Library of China - connected to ChinaNet and CERNet by microwave (2Mbps). It has now two electronic reading rooms, among which one is providing Internet services and CD-ROM search services with 20 workstations and 70 bibliographical database CD-ROM titles, the other is providing services of multimedia reading, with 22 workstations, more than 700 titles of electronic publications, including about 300 titles of multimedia titles.

2. Tsinghua University Library - connected to CERNet and the above mentioned three other network services. It has a campus network called TUnet, connected with more than 2,000 computer servers in the campus, providing OPAC and CD-ROM search services. Students can use TUnet on 350 PC workstations in the Open Computer Laboratory. The library backbone network is a fibre-optic one with 100 Mbps fast switched Ethernet technology.

Table I: IT Sales in 1996

	Amount (billion RMB yuan)	Increase over 1995
Total Sales in 1996	92	49.6%
Software	9.2	35.3%
Information Services	11.3	47%

Table II : A Comparison of PC Sales among 4 Countries in Asian-Pacific Region

Countries	Japan	China	Korea, South	Australia
Items sold in 1996	8.1 million	2.12 million	1.97 million	1.39 million
Growth over 1995	39.1%	74%	30.4%	14.8%

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