

## EASTERN RESURGENCE

### ASIA-PACIFIC TELECOMMUNICATION MARKETS

The Asia region was adversely affected by the economic crisis that struck in mid-1997. Economic output declined sharply in many East and South East Asian economies. Recent data suggest that the region has overcome this setback and is poised to regain its position as the pre-eminent telecommunication market in the world. Trends in Asia-Pacific telecommunication markets presented here are extracted from the fourth edition of ITU's *Asia-Pacific Telecommunication Indicators*, prepared for ASIA TELECOM 2000 taking place in the Special Administrative Region (SAR) of Hong Kong from 4 to 9 December 2000.

Around one-third of the world's telecommunication market – measured by subscribers and users of fixed telephone, mobile cellular and Internet networks – is located in the Asia-Pacific region. The region has considerable potential as it accounts for almost 60 per cent of the world's

population. Despite flat economic growth in 1997 and 1998, the telecommunication networks of the region's developing countries continued to grow. The most resilient were the Internet and mobile sectors. Five of the top ten Internet markets in the world are now in the Asia-Pacific region. In terms of subscribers in the mobile arena, China and Japan hold the second and third ranking in the world respectively. Fixed-line networks have also grown, albeit much slower than the Internet or mobile.

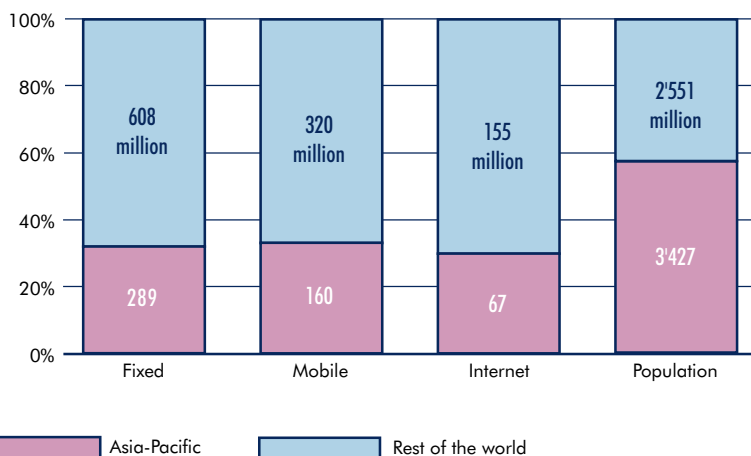
There is still much room for improvement among the region's developing countries. Overall, the fixed-line density for developing countries in the region was just above five main lines per 100 inhabitants at year-end 1999, with four nations yet to reach one line per 100 people. Some six million people are on waiting lists for the fixed-telephone service and many



more have not signed up because they cannot afford the service now. Less than one-fifth of households in the region's developing countries have their own telephone service.

Wireless technology holds much promise for promoting communication access in the region. There are already more mobile than fixed-telephone subscribers in Hong Kong SAR, Japan, the Republic of Korea, Singapore and Taiwan-China. Among the Asia-Pacific developing countries, there were 1.8 mobile phone subscribers per 100 inhabitants at year-end 1999. In this group, only Cambodia has made the more mobile than fixed-line service crossover and two other nations are on the verge of doing the same: the Philippines and Malaysia. One of the factors driving cellular growth in the Philippines is the popularity of pre-paid plans. At the end of 1999, over 70 per cent of Filipino mobile subscribers were using these plans. As pre-paid programmes get more established in the region, mobile subscriptions should rise.

**Distribution of fixed and mobile telephone subscribers, Internet users and population in the Asia-Pacific region and the rest of the world (1999)**



Source: ITU, 2000.

# ITU TELECOMMUNICATION INDICATORS UPDATE

OCTOBER - NOVEMBER - DECEMBER 2000

## ASIA-PACIFIC TELECOMMUNICATION INDICATORS

	Population	GDP per capita	Main telephone lines		Mobile cellular subscribers		Internet users	
	Total (000s)	USD	Total (000s)	Per 100 people	(000s)	Per 100 people	Total (000s)	% of population
Economy	1999	1999	1999	1999	1999	1999	Dec. 1999	1999
Afghanistan	21'923	...	29	0.13	-	-	...	...
Bangladesh <sup>2</sup>	126'947	281	433	0.34	149	0.12	30	0.0%
Bhutan	657	624	12	1.80	-	-	0.5	0.1%
Cambodia	10'945	286	28	0.25	89	0.81	4	0.03%
China	1'266'838	782	108'716	8.58	43'296	3.42	8'900	0.7%
D.P.R. Korea	23'702	...	1'100	4.64	-	-	...	...
Fiji	806	2'002	77	9.76	23	2.90	8	0.9%
India <sup>1</sup>	998'056	435	26'511	2.66	1'884	0.19	2'800	0.3%
Indonesia	209'255	675	6'080	2.91	2'221	1.06	900	0.4%
Iran (I.R.) <sup>3</sup>	66'796	3'885	8'371	12.53	490	0.73	100	0.1%
Kiribati	82	545	3	3.44	0.3	0.35	1	1.2%
Lao P.D.R.	5'297	250	34	0.65	9	0.17	2	0.0%
Malaysia	21'830	3'607	4'431	20.30	2'990	13.70	1'500	6.9%
Maldives	278	680	22	7.97	3	1.05	3	1.1%
Micronesia	116	1'950	9	7.99	-	-	2	1.7%
Mongolia	2'621	416	103	3.95	35	1.32	6	0.2%
Myanmar	45'059	5'504	249	0.55	11	0.03	1	0.0%
Nepal <sup>4</sup>	22'370	222	247	1.11	-	-	35	0.2%
Pakistan <sup>2</sup>	134'510	458	2'986	2.22	279	0.21	80	0.1%
Papua New Guinea	4'702	768	47	1.14	6	0.13	2	0.04%
Philippines	74'454	1'030	2'940	3.95	2'724	3.66	500	0.7%
Samoa	177	1'255	8	4.87	3	1.72	1	0.3%
Solomon Islands <sup>1</sup>	430	901	8	1.89	1	0.17	3	0.5%
Sri Lanka	18'639	846	679	3.64	228	1.22	65	0.3%
Thailand <sup>5</sup>	60'856	2'038	5'216	8.57	2'339	3.84	800	1.3%
Tonga	98	1'589	8	7.90	0.2	0.20	1	1.0%
Vanuatu	186	1'273	5	2.84	0.3	0.17	3	1.6%
Viet Nam	78'705	312	2'106	2.68	329	0.42	100	0.1%
<b>Developing</b>	<b>3'196'335</b>	<b>799</b>	<b>170'459</b>	<b>5.33</b>	<b>57'104</b>	<b>1.79</b>	<b>15'845</b>	<b>0.5%</b>
Brunei Darussalam	322	17'556	78	24.68	49	15.60	25	7.8%
French Polynesia	231	16'601	52	22.62	22	9.49	5	2.2%
Guam	164	19'598	75	46.62	20	12.16	5	3.0%
Hongkong SAR <sup>1</sup>	6'721	23'593	3'869	57.57	4'275	63.61	2'430	36.2%
Korea (Rep.)	46'480	8'755	20'518	44.14	23'443	50.44	10'860	23.4%
Macau SAR	437	14'079	178	40.79	89	20.24	40	9.1%
New Caledonia	210	...	51	24.09	25	12.11	5	2.4%
Singapore <sup>1</sup>	3'894	21'881	1'877	48.20	1'631	41.88	950	24.4%
Taiwan-China	22'092	13'169	12'044	54.52	11'541	52.24	4'540	20.6%
<b>High-income</b>	<b>80'551</b>	<b>11'951</b>	<b>38'741</b>	<b>48.10</b>	<b>41'095</b>	<b>51.01</b>	<b>18'860</b>	<b>23.4%</b>
Australia <sup>2</sup>	18'911	18'979	9'857	52.12	6'501	34.38	5'600	29.6%
Japan <sup>1</sup>	126'505	34'377	70'530	55.75	56'846	44.94	27'060	21.4%
New Zealand <sup>1</sup>	3'828	13'905	1'877	49.03	881	23.01	700	18.3%
<b>Developed</b>	<b>149'244</b>	<b>31'918</b>	<b>82'264</b>	<b>55.12</b>	<b>64'228</b>	<b>43.03</b>	<b>33'360</b>	<b>22.3%</b>
<b>ASIA-PACIFIC</b>	<b>3'426'130</b>	<b>2'446</b>	<b>291'464</b>	<b>8.51</b>	<b>162'412</b>	<b>4.75</b>	<b>68'065</b>	<b>2.0%</b>

Notes: Data in italics are estimates or refer to earlier year. Year ending 31 December except:

<sup>1</sup> Beginning 01.04

<sup>4</sup> Ending 15.07

<sup>2</sup> Ending 30.06

<sup>5</sup> Ending 30.09.

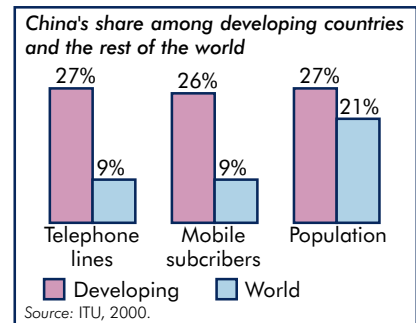
<sup>3</sup> Beginning 22.03

Source: ITU, 2000.

## CHINA ASCENDANT

The People's Republic of China was barely affected by the Asian financial crisis. Its currency held firm and economic growth remained positive. China's telecommunication sector has prospered and emerged as one of the largest in the world. This is not surprising considering that the nation has the planet's largest population. It is interesting to note that China's share of tele-

phone lines and mobile subscribers in developing nations matches its share of population. One operator, China Telecom, provides fixed-line communications while mobile communications are provided by two operators: China Mobile and China Unicom – Chinese telecommunication companies are now the world's largest in terms of subscribers.



## FIXED LINES

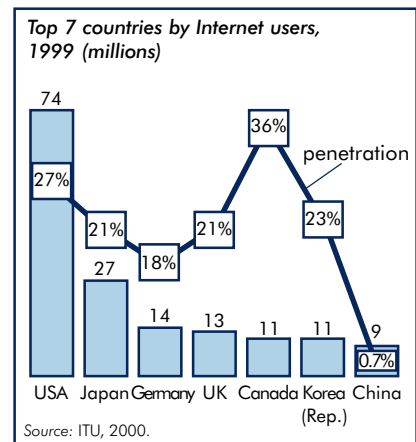
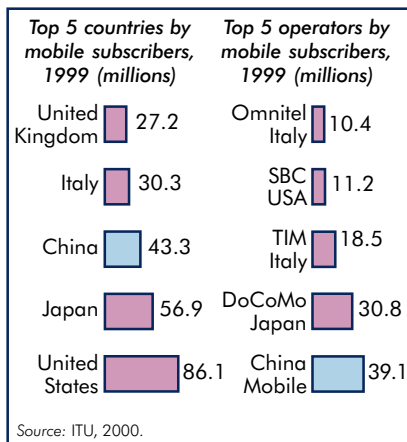
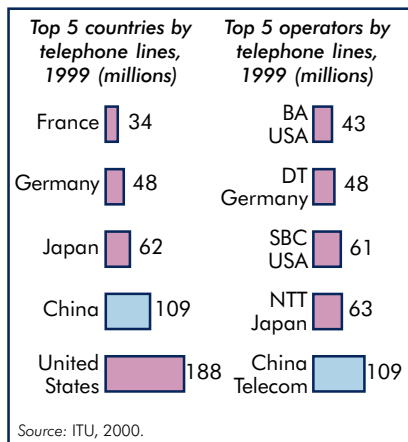
At the end of 1999, China had the second largest fixed telephone line network in the world with 109 million subscribers. China has had the highest average annual growth rate among the top 10 largest countries in terms of main telephone lines since 1996 at 26 per cent. In 1999, Brazil had a slightly higher growth rate – partly attributed to the introduction of competition – at 25 per cent compared to China's 24.2 per cent. China's teledensity stood at 8.6 telephone lines per 100 inhabitants at the end of 1999. China Telecom is the world's largest fixed telephone line operator.

## MOBILE CELLULAR

At the end of 1999, China had the world's third largest mobile cellular market with a little over 43 million subscribers. The number of Chinese mobile subscribers grew at an average annual rate of 85 per cent between 1996 and 1999. Mobile pre-paid cards were only introduced in the country towards the end of 1999 and will undoubtedly add to mobile growth. China's mobile penetration stood at 3.42 per 100 inhabitants at the end of 1999. China Mobile is the largest mobile operator in the world measured by the number of subscribers.

## INTERNET

With some nine million Internet users at the end of 1999, China was the world's seventh largest market and one of three Asian nations among the top seven. This is a significant achievement considering the difficulty of adapting content to the Chinese language character set and the relatively low level of computer penetration in the country. Though Internet penetration was less than one per cent of the population, many analysts predict this will grow sharply in the years to come.



## STATISTICS-FRIENDLY REGULATORS

Two of the most statistics-friendly regulators in the Asia-Pacific region are the Infocomm Development Authority of Singapore (IDA) and the Office of the Telecommunications Authority (OFTA) of Hong Kong SAR. Both publish a range of monthly telecommunication statistics on their websites. IDA also compiles indices such as penetration rates while OFTA provides its annual ITU statistical questionnaire on a Web page. The Ministry of Posts and Telecommunications of Japan has monthly cellular statistics on its website while the Telecommunication Carrier Association pro-

vides more detail, including subscribers by operator. Few national statistical agencies in the region compile telecommunication statistics. One that does is Taiwan-China's statistics office which provides monthly telecommunication statistics on its website. Australia's Bureau of Statistics makes regular household Internet surveys and also provides some telecommunication-related information from other surveys.

Hopefully, in the future, additional regulators and national statistical agencies will

follow the lead of these organizations by providing timely telecommunication indicators on their websites. This will add to greater transparency and improve analysis and understanding of the Asia-Pacific's dynamic telecommunication sector.



Organization	Website
IDA, Singapore	<a href="http://www.ida.gov.sg">www.ida.gov.sg</a>
OFTA, Hong Kong SAR	<a href="http://www.ofta.gov.hk">www.ofta.gov.hk</a>
MPT, Japan	<a href="http://www.mpt.go.jp">www.mpt.go.jp</a>
TCA, Japan	<a href="http://www.tca.or.jp">www.tca.or.jp</a>
Bureau of Statistics, Taiwan-China	<a href="http://www.stat.gov.tw">www.stat.gov.tw</a>
Australian Bureau of Statistics	<a href="http://www.abs.gov.au">www.abs.gov.au</a>

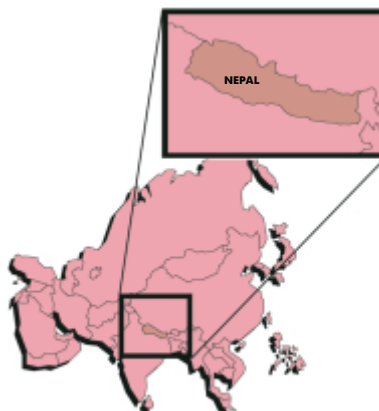
## NEPAL COUNTRY PROFILE

The Kingdom of Nepal is situated in South Asia, on the southern slopes of the Himalayan mountain range, and lies between India and China. Eight of the world's ten tallest peaks, including the highest Mt. Everest, are located in Nepal. Administratively, Nepal is divided into 75 districts. The lowest administrative division is the Village Development Committee (VDC) of which there are some 4000.

The population of Nepal is estimated at around 23 million for mid-year 2000. Kathmandu, the capital, accounts for four per cent of the country's population. Around 90 per cent of Nepalese reside in rural areas. Nepal is a Hindu kingdom – the only officially Hindu country in the world. The official language is Nepali spoken by about half the population; more than a dozen other languages are also used. English is understood by business and government leaders and in tourist establishments.

Nepal is classified as a least developed country (LDC) with a per capita income, measured in purchasing price parity, of USD 1180 in 1998.

The history of telecommunications in Nepal is relatively recent. A line between Kathmandu and the Indian border was opened in 1914, but it was not until 1955 that the capacity of the local exchange in Kathmandu reached 300 lines. The first satellite earth station was installed in 1982. Major growth has occurred since 1995. The acceleration is mainly due to a World Bank loan, introducing transparent tendering which has increased the number of lines that can be purchased for the same price by threefold. In the latter half of the 1990s, Nepal has grown as fast, if not faster, than any other country in the South Asia region – despite the absence of foreign investment. An im-

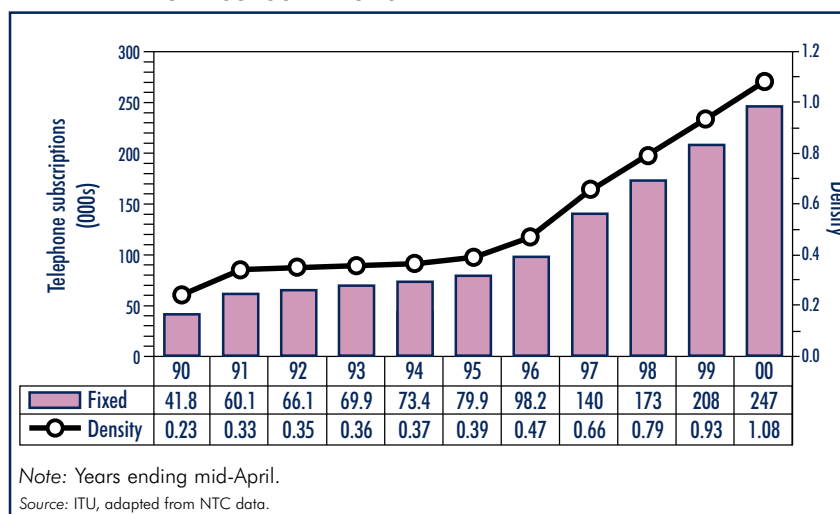


portant milestone was reached in 1999 when teledensity reached one line per 100 inhabitants. Telephone service is available in all 75 districts, of which 65 have their own telephone exchange while the rest are served by satellite and other wireless technologies. There is still a large challenge to provide the telecommunication service in this mountainous and rural

try of Information and Communications and is regulated under the terms of the 1997 Telecommunications Act. The Act established a regulatory body, the Nepal Telecommunications Authority. The Nepal Telecommunications Corporation (NTC) is the incumbent public telecommunications operator and, until recently, held a monopoly over all aspects of telecommunications in the Kingdom. NTC is fully State-owned, though there are plans to privatize the company. It is also intended to license a wireless local loop operator. NTC started the GSM mobile service in May 1999 and had 6536 subscribers as of mid-June 2000. There are plans to license a second mobile operator.

Nepal's Internet market got a boost in mid-1999 when Internet Service Providers (ISP) were allowed to have their own international gateways. Prices dropped to the lowest level in

### FIXED TELEPHONE SUBSCRIPTIONS IN NEPAL



nation as around two-thirds of all telephones are in the Kathmandu area. There are more than 275 000 on the waiting list. Some 60 per cent of VDCs are waiting for telephone service.

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