STATISTICAL YEARBOOK

for Asia and the Pacific

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ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

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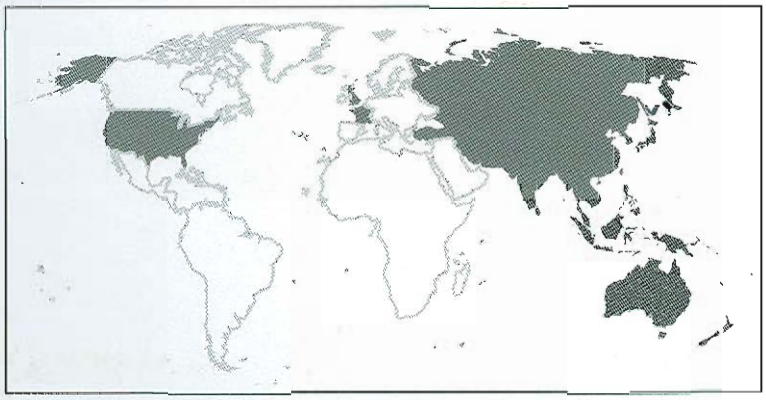

The shaded areas of the map represent ESCAP members and associate members.

STATISTICAL YEARBOOK

for Asia and the Pacific

Asiya və Sakit okean ölkələri üzrə statistik illik məlumat

2007

ESCAP

Azərbaycan Respublikası
Dövlət Statistika Komitəsi
Daxil olma № 136
"14" 04 2008 il

United Nations
New York, 2007

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Statistical Yearbook for Asia and the Pacific 2007

United Nations publication
Sales No. B.08.II.F.1
Copyright © United Nations 2007
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Manufactured in Thailand
ISBN: 978-92-1-019241-5
ISSN: 0252-3655
ST/ESCAP/2475

Preface

The monitoring of social, economic and environmental development requires the use of data that is comparable across countries and over time. This is realized in the 2007 edition of the *Statistical Yearbook for Asia and the Pacific*. For the first time in its 50-year history, the *Yearbook* presents data compiled from global sources maintained by United Nations agencies and other international organizations. The use of "international" rather than "national" data allows for three major innovations, which together have resulted in a completely revised ESCAP flagship publication: the organization of the *Yearbook* in chapters that address social, economic and environmental topics, the presentation of indicator values aggregated to regions and other groups of countries of interest, and the use of charts and analytical text to facilitate the interpretation of indicator values and trends therein.

The ESCAP secretariat hopes that the use of internationally comparable data and methodological transparency will trigger discussions on the benefits of following international statistical standards and methodologies at the national level. Data on neighbours and other countries with similar circumstances and levels of development provide irreplaceable benchmarks for evidence-based policy planning. At the same time, comparable indicators provide yardsticks for citizens to hold their decision makers to account, and promote good governance and prudent management of public resources.

The new *Yearbook* would not have been possible without the considerable efforts of international agencies in collecting the data and ensuring that the figures are as comparable between the countries and over time as possible. Nor would it have become a reality if it were not for the efforts of national statistical systems to produce the original data. By taking data from international agencies, the ESCAP secretariat does its part to reduce the response burden on national statistical systems, contributing to the freeing of resources for better use.

For nearly as important as what is covered in this *Yearbook* is what could not be. A mere glance reveals the extent of data gaps in some tables. What is more, a large number of useful indicators could not be included in any form because the data availability criterion could not be met. In other words, the indicator selection was often guided by the availability of data rather than the requirements of the development topic addressed.

Small statistical offices do not have resources to conduct the extensive programme of regular surveys that would be needed to obtain all these data. In one of its core areas of work, ESCAP provides training and facilitates, in partnership with a number of donors and development agencies, the strengthening of official national statistical systems. Another theme of the statistics subprogramme of ESCAP, in the production of the *Yearbook* and capacity-building initiatives alike, is to make better use of and widen the audience for data that have already been collected, usually at a considerable cost.

The *Yearbook* includes in a consistent manner the definitions and aggregation methods for all indicators. The original data sources are reflected with the precision available to ESCAP. The notes on statistical methods at the end of the *Yearbook* provide details on how the aggregates were derived and any imputation was performed in their calculation by ESCAP. The notes at the end of each chapter provide, for each indicator, the definition and the aggregation method, including weighting and imputation where applicable, as well as the source(s) of data. The importance of this kind of information about data, which statisticians call metadata, cannot be overemphasized in a comparative inter-country study such as this.

This *Yearbook* is available online at the ESCAP website, http://www.unescap.org/stat/data/, where its data and other ESCAP data are downloadable in a user-friendly format. *Yearbook* readers are encouraged to use the online form available on the site to send feedback in order for the secretariat to be able to make the next *Yearbook* and other statistical information services even better. Comments on the overall usefulness of the revamped publication and the areas covered in it are particularly welcome.

Acknowledgements

The Statistical Yearbook was prepared under the guidance of Pietro Gennari and Ilpo Survo by an ESCAP Statistics Division team coordinated by Eric Hermouet and Jan Smit. The Yearbook was prepared by the following team from the Statistics Division: Krisana Boonpriroje, Sara Duerto Valero, Haishan Fu, Nongnuch Hiranyapaisansakul, Joel Jere, Supharat Kaewkhonkaen, Pornrat Lertyosthanavath, Wei Liu, Nixie Mabanag, Giovanni Maria Semeraro, Andres Montes, Zeynep Orhun, Panyasri Phuvakirivivat, Fabio Pinna, Varaphorn Prapatsakdi, Christian Stoff, Panpaka Supakalin, and Yichun Wang.

The indicators were selected and the analysis developed in close collaboration with ESCAP's Emerging Social Issues, Environment and Sustainable Development, Information, Communication and Space Technology, Trade and Investment, and Transport and Tourism divisions. In particular, substantive contributions were provided by Srinivas Tata, Kelly Anne Hayden, David Hastings, Jean-Michel Sadoul, Mia Mikic, Marit Nilses, Marc Proksch and Richard Alexander Roehrl.

Orestes Plasencia copyedited the draft chapters. The cover was designed by Erawan Printing Ltd., Part. who also printed the book.

ESCAP gratefully acknowledges the contribution and efforts of agencies that compile and make available internationally comparable statistics on their websites.

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1. Demographic trends

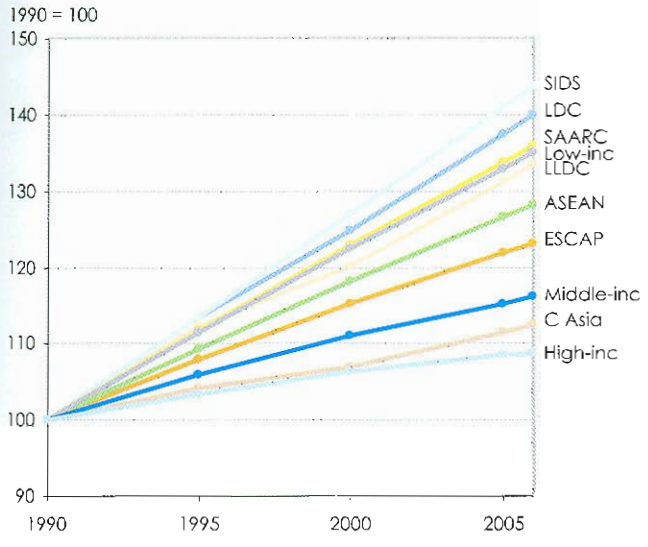
The Asian and Pacific region is home to over 4 billion people, more than 60 per cent of the world's population.

The region's share in the global population has not changed since 1990, but the absolute number of people has increased by 760 million, which is almost double the present population of North America. Of the 10 most populated countries in the world, 7 are in Asia and the Pacific.

China and India are the most populated countries in the world, with populations of 1.3 billion and 1.1 billion, respectively. Half of the region's population lives in these two countries. Indonesia, the fourth most populated country in the world, is home to more than 228 million people.

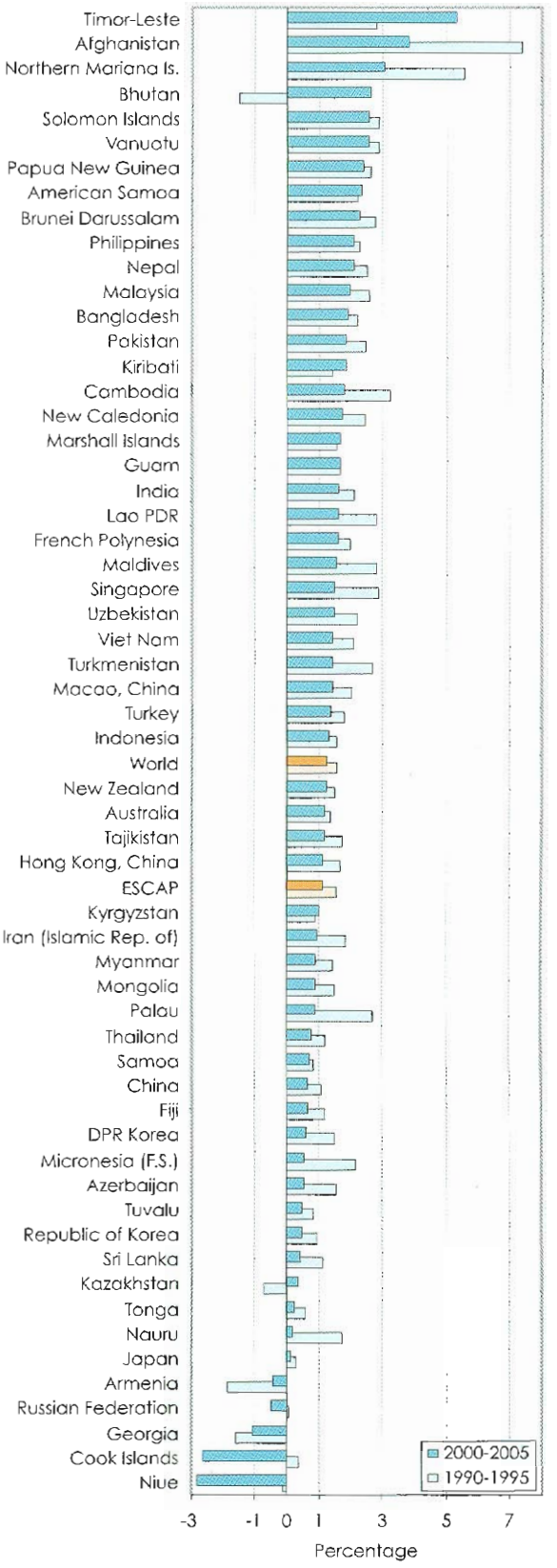
Between 1990 and 2006, the population of Asia and the Pacific has grown at half the rate of Africa — the region with the fastest growth. Latin America and the Caribbean has grown at almost the same pace as Asia and the Pacific, while in Europe and North America population growth has stagnated since 1990.

Figure 1.1 Population growth for selected groups of Asian and Pacific countries/areas, 1990-2006



The highest population growth within Asia and the Pacific has taken place in small island developing States, least developed countries, landlocked developing countries and SAARC member countries, as shown in figure 1.1. Small island developing States have grown at an average rate of over 2 per cent since the early 1990s. In fact, out of the 10 countries with the highest population growth rates Asia and the Pacific, 6 are small island developing States.

Figure 1.2 Average annual population growth rate in Asia and the Pacific, 1990-1995 and 2000-2005



The Northern Mariana Islands recorded the highest population growth rate among small island developing States from 2000 to 2005, while the Solomon Islands, Papua New Guinea, Brunei

Darussalam, Timor-Leste and Vanuatu have also seen their populations increase, at rates of over 2 per cent per year.

The population of Central Asia has barely changed, with Armenia, Georgia and Kazakhstan actually experiencing a decline in the number of citizens. The population of the Russian Federation decreased by over 5 million people between 1990 and 2006, largely due to a long period of low fertility, which has been less than 1.5 children per woman since the early 1990s.

The Asian and Pacific region has the lowest fertility rate among developing regions — an average total fertility rate of 2.4 children per woman, which is down from 2.9 in 1990-1995. Africa, in contrast, has a fertility rate of 5, while the rates in North America and Europe are 2 and 1.4 children per woman, respectively — below the 2.1 replacement rate.

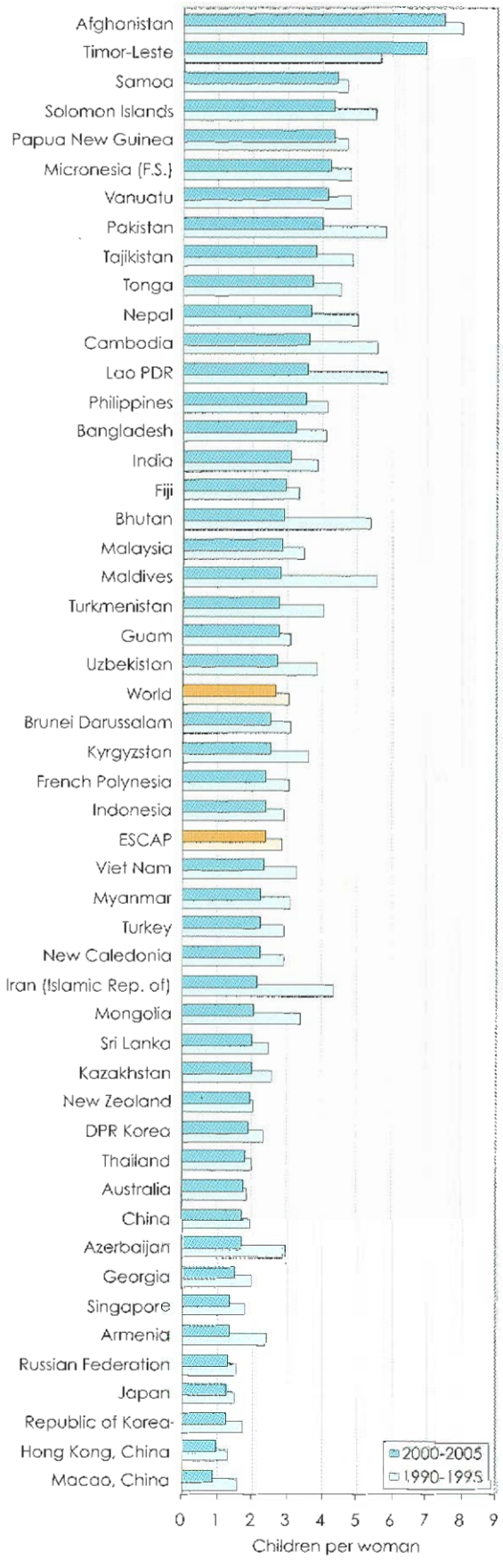
Fertility in landlocked developing countries, least developed countries, small island developing States and the SAARC region is 3.3 children per woman or above. All of these country groupings registered a fall in total fertility rates between 1990 and 2006, as did ASEAN member countries and Central Asian countries, whose fertility rates decreased from an average of 3 children per woman in 1990 to their current levels of 2.5 and 2.4, respectively.

The lowest fertility rates in Asia and the Pacific are found in Central Asian and high-income countries and areas; noteworthy examples are Macao, China, and Hong Kong, China, which have rates below 1 child per woman, as shown in figure 1.3. On the other hand, Afghanistan (7.5) and Timor-Leste (7), along with various small island developing States (over 4), have the highest fertility rates in the region.

Similarly, crude birth rates in Asia and the Pacific have come down at a faster pace than in any other region. In 1990-1995, there were 24 births per 1,000 population, compared with 19 in 2000-2005. Birth rates in low-income economies fell more than in any other income grouping in the region but remained at high levels in comparison with middle- and high-income economies.

The highest birth rates were recorded in Afghanistan, at 49 per 1,000 people, and Timor-Leste, with close to 42 per 1,000 people. Many small island developing States also have birth rates over 30 per 1,000. On the other hand, crude birth rates in all Central Asian countries fell between 1990-1995 and 2000-2005.

Figure 1.3 Fertility rate in Asia and the Pacific, 1990-1995 and 2000-2005



Lower fertility has been followed by lower mortality in the region as a whole. Asia and the Pacific recorded a decrease in its crude death rate from 8.5 to 7.8 deaths per 1,000 people between

1990-1995 and 2000-2005. This contrasts sharply with the rates in Africa and Europe; at 13.9 and 10.6 deaths per 1,000 people, respectively, they are the highest in the world.

Only 10 countries in Asia and the Pacific registered an increase in death rates between 1990-1995 and 2000-2005. Among those with the largest increases are the Democratic People's Republic of Korea, where the crude death rate moved from 6 to 9 per 1,000 people, and the Russian Federation, where the rate increased from 13 to 16 per 1,000 people during the same period.

Although Afghanistan registered a decrease in its death rate, it still has the highest death rate in the region, at 21 per 1,000 people, and the fourth highest in the world, after Sierra Leone, Angola and Zambia.

The dependent population is the share of children aged 0 to 14 and adults 65 years and above as a percentage of the total population. Longer expected life spans have translated into an increase in the dependent population in many countries, while higher fertility rates commonly contribute to higher shares of children aged 0 to 14.

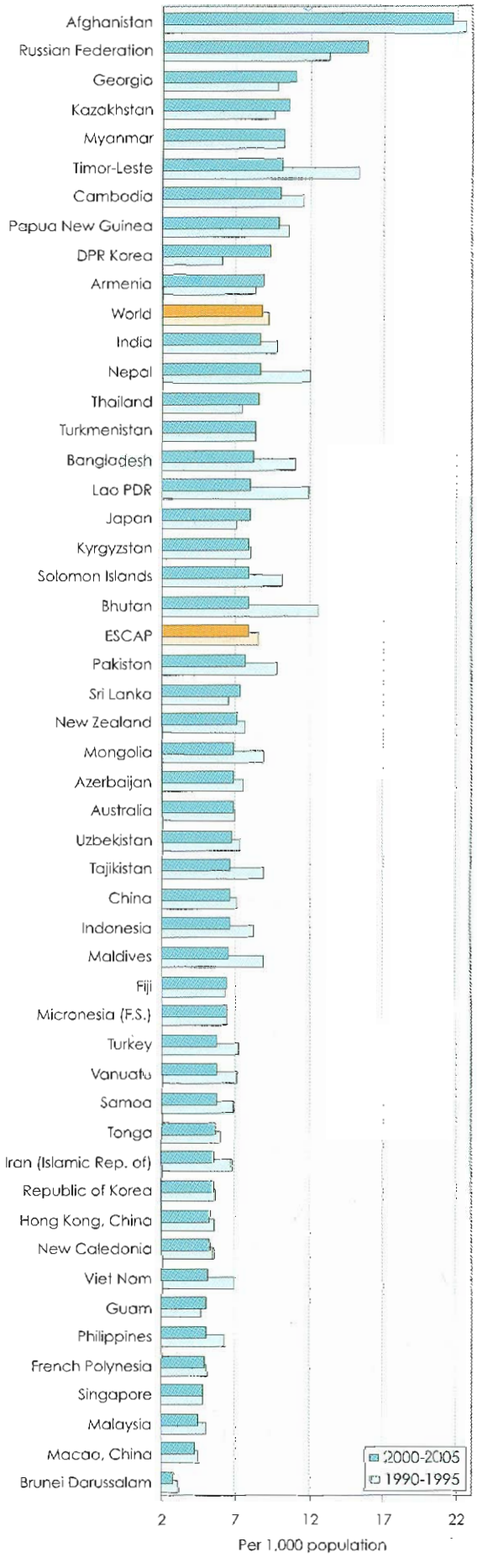
Children aged 0 to 14 account for 36 per cent of the total population of landlocked developing countries, least developed countries and small island developing States, compared with the regional average of 29 per cent. In Africa, children in this age group account for 42 per cent of the total population.

The largest decline in the share of the population under age 15 took place in the ASEAN region and Central Asia, from over 36 per cent in 1990, to around 29 per cent by 2006. Between 1990 and 2006, the share of children below 15 years of age increased in only 13–mostly African–countries. Afghanistan and Timor-Leste were the only Asian and Pacific countries among them.

The share of adults over 65 years of age, on the other hand, has increased in Asia and the Pacific. In 1990, 5.9 per cent of the total population of Asia was over 65 years old, but by 2006 this proportion had increased to 8.4 per cent. Among all regions, only Europe and North America have higher shares of senior citizens, at 16.8 and 12.4 per cent, respectively.

In the high-income economies of the region, close to 18 per cent of the total population is over the age of 65, up from 11 per cent in 1990. In other income groups, this proportion is far lower: 8 per cent in middle-income economies and 5 per cent in low-income economies.

Figure 1.4 Crude death rate in Asia and the Pacific, 1990-1995 and 2000-2005



Central Asian countries had the largest increase in the relative size of this population group, to 7.7 per cent in 2006 from 5.5 per cent in 1990. Within this subregion, the share of the 65-plus age group in Armenia, Georgia and the Russian Federation rose to over 12 per cent during this period.

Overall, the share of the dependent population — those aged below 15 and 65 and above — in Asia and the Pacific declined between 1990 and 2006. The share of the dependent population increased in only four countries in the region: Afghanistan, the Democratic People's Republic of Korea, Japan and Timor-Leste. In the case of Afghanistan and Timor-Leste, this was due to an increase in the share of the young population, while in the case of the Democratic People's Republic of Korea and Japan it was due to a rise in share of the aging population.

Higher female life expectancy is reflected in the sex ratio (females to males) normally tilting towards females at successively older age cohorts. The ratio of girls to boys is usually lower than that of females to males in the general population. However, at just 92 (in percentage terms), the ratio of girls to boys in Asia and the Pacific is particularly low and has been decreasing during the last 16 years. In Africa, for example, the ratio is 98 and has been at that level since 1990.

The ratios of girls to boys in China and India tilt the Asian and Pacific average towards a larger number of boys. In India, there are less than 92 girls for every 100 boys, and in China there are even fewer: just 86 girls per 100 boys. China, along with Armenia and Azerbaijan, has the lowest ratio of girls to boys in the world. Moreover, China has recorded a decline in this ratio, from 91 girls per 100 boys in 1990 to its latest level.

Although the sex distribution is somewhat less skewed towards boys at older age cohorts, Asia and the Pacific is the only region in the world with a female to male ratio of less than 100. In 2006, there were 96 women per 100 men, a figure that has not changed since the early 1990s.

In Latin America and the Caribbean as well as North America, there were 103 women per 100 men in 2006, while in Europe there were 106 women per 100 men. Within the Asian and Pacific region, Central Asia has the highest proportion of women to men, at 105, compared with the SAARC region, which, at 94, is below the regional average.

Among countries with a higher number of women than men, the highest proportion is 130 women for every 100 men and belongs to the Northern Mariana Islands, which has registered one of the most pronounced changes in this respect since 1990, when there were 91 women for every 100 men. The country's demographic transformation

Figure 1.5 Proportion of children aged 0-14 in total population in Asia and the Pacific, 1990 and 2006

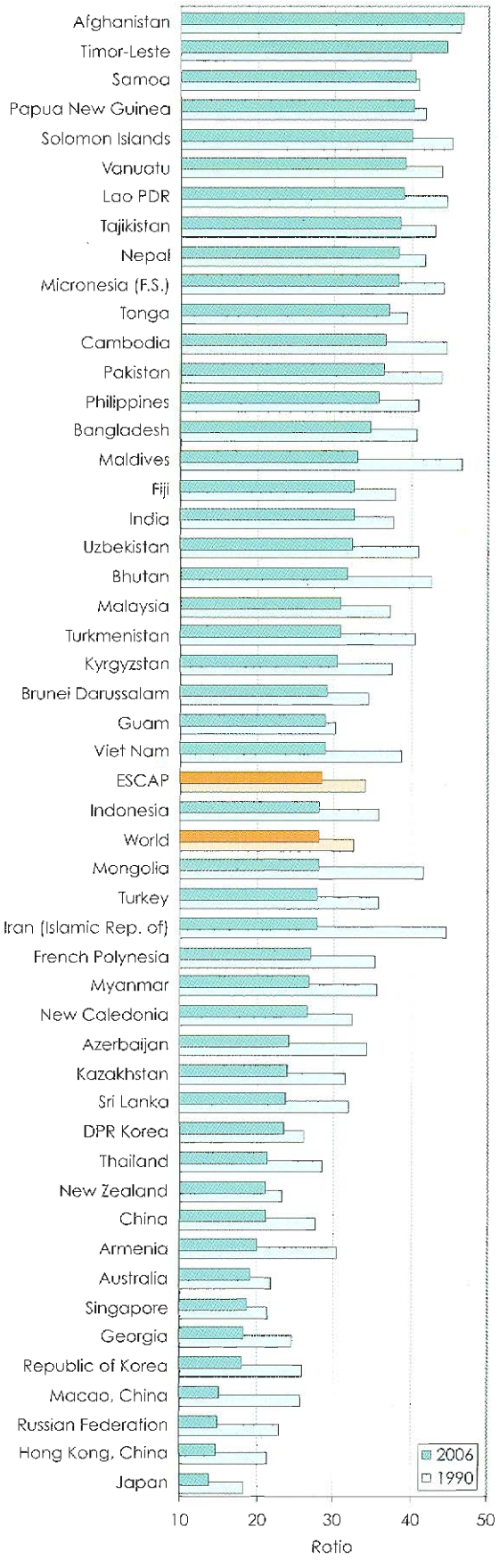


Figure 1.6 Female population in Asia and the Pacific, 1990 and 2006

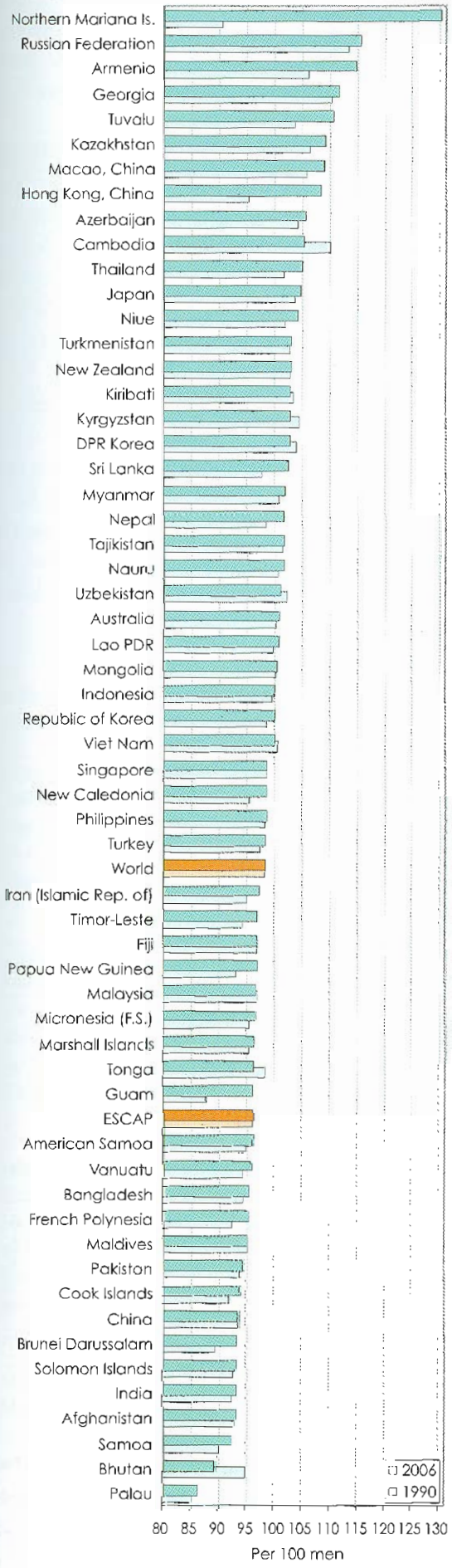
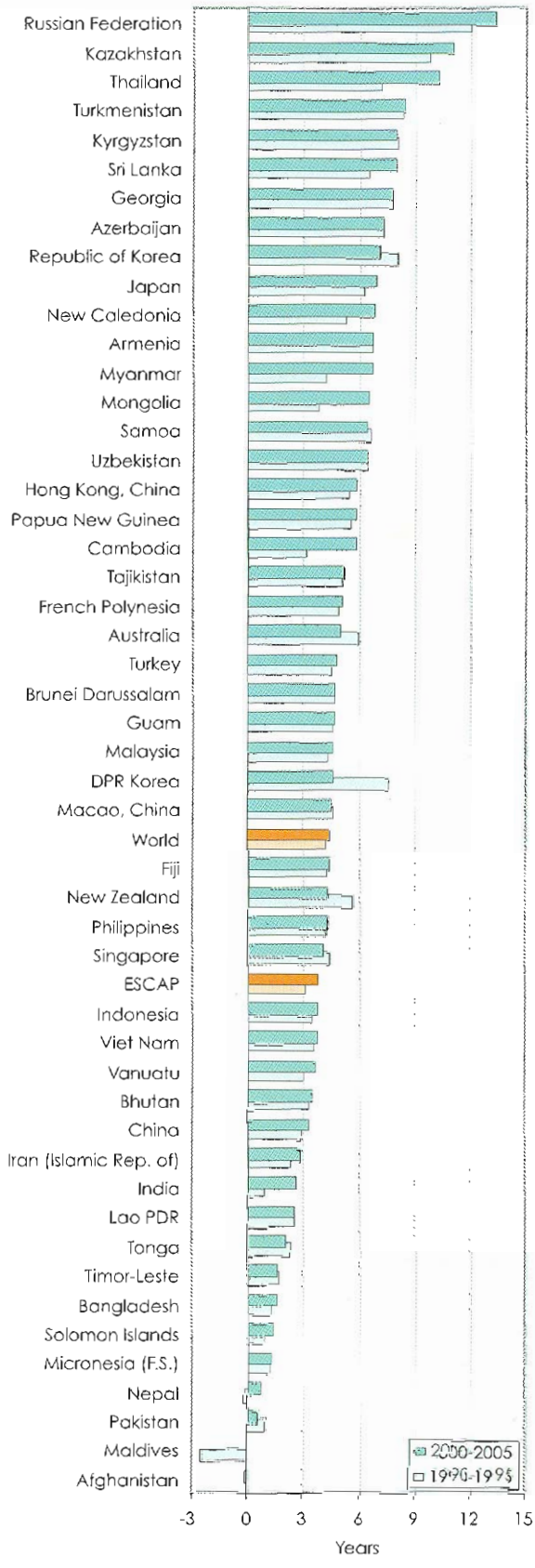


Figure 1.7 Difference in life expectancy at birth between females and males in Asia and the Pacific, 1990-1995 and 2000-2005



is mainly due to an influx of female guest workers who are predominantly employed in the garment industry.

Globally, women live longer than men, and this is also the case for Asia and the Pacific. Female life expectancy in the region is 70 years, while male life expectancy is 66 years. For both men and women, life expectancy in the Asian and Pacific region has increased by the same number of years — three — for all country income groups, which suggests that a higher income is not the only determinant of better health.

Among country groupings, however, disparities are evident. ASEAN recorded the highest increase in female as well as male life expectancy, by five and four years, to 71 and 66 years, respectively. In least developed countries, life expectancy rose by four years for both sexes, but despite this, they still have the lowest life expectancy in Asia and the Pacific, at 61 years for women and 58 for men.

In landlocked developing countries and Central Asian countries, life expectancy has barely changed. For both women and men, life expectancy rose by only one year in landlocked developing countries, and in Central Asian countries there was almost no change. Moreover, Central Asian countries recorded the largest difference between female and male life expectancy, at eight years, which is equivalent to the difference between the sexes in high-income economies.

Among the five countries with the largest difference between female and male life expectancy, four are in North and Central Asia. In the Russian Federation, women can expect to live 13 years longer than men, while in Kazakhstan women live 11 years longer. In Thailand — the only ASEAN member near the top of the list — women can expect to live a decade longer than men.

Life expectancy in Afghanistan, at 42 years, is not only the lowest in the Asian and Pacific region for both men and women, but it is also more than 20 years below the regional average. This figure contrasts starkly with life expectancy in Australia, Japan and Hong Kong, China, where women can expect to live over 83 years, while men live close to 78 years.

Total population (thousands): De facto mid-year population, covering all residents, regardless of legal status or citizenship, except for refugees not permanently settled in the country of asylum. *Aggregates:* Sum of individual country values. *Source:* *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Average annual population growth rate (percentage): The average annual rate of change in the total population over a five-year period, starting and ending in the middle of the indicated years. *Aggregates:* Averages are calculated using total population as weight. *Source:* *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Crude birth rate (per 1,000 population): The total number of births in a population during a given period divided by the total number of person-years lived by the population during that period, generally approximated by the size of the population at the mid-point of the period multiplied by the length of the period in years. Presented per 1,000 people for five-year periods. *Aggregates:* Averages are calculated using total population as weight. *Source:* *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Crude death rate (per 1,000 population): The ratio of the number of deaths occurring during a calendar year to the number exposed to the risk of dying during the same period, equivalent to the mean population or average population for the period. Presented per 1,000 people for five-year periods. *Aggregates:* Averages are calculated using total population as weight. *Source:* *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Proportion of children in total population (percentage): The proportion of children aged 0-14 in the total population. *Aggregates:* Averages are calculated using the population aged 0-14 as weight. *Source:* Calculated by ESCAP using data from *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Proportion of elderly in total population (percentage): The proportion of people aged 65 or older in the total population. *Aggregates:* Averages are calculated using the population aged 65 and above as weight. *Source:* Calculated by ESCAP using data from *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Population sex ratio (women per 100 men): The number of women divided by the number of men in the total population, expressed per 100 men. *Aggregates:* Averages are calculated as the sum of women population divided by the sum of men population. *Source:* Calculated by ESCAP using data from *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Child sex ratio (girls per 100 boys): The number of girls divided by the number of boys in the total population aged 0-14 years, expressed per 100 boys. *Aggregates:* Averages are calculated as the sum of girls aged 0-14 divided by the sum of boys aged 0-14. *Source:* Calculated by ESCAP using data from *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Total fertility rate (live births per woman): The number of children a woman would have by the end of her reproductive period if she experienced the current prevailing age-specific fertility rates throughout her childbearing life. Reported as annual averages for five-year periods starting and ending in the middle of the indicated years. *Aggregates:* Averages are calculated using women aged 15-49 as weight. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Adolescent fertility rate (live births per 1,000 girls aged 15-19): The number of births to women aged 15-19 divided by the number of women in the same age group. Reported as average number of births per thousand women for five-year periods starting and ending in the middle of the indicated years. *Aggregates:* Averages are calculated using women aged 15-19 as weight. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Female life expectancy at birth (years): The number of years a newborn infant girl would live if prevailing patterns of age-specific mortality rates at the time of birth were to stay the same throughout the child's life. *Aggregates:* Averages are calculated using the total female population as weight. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Male life expectancy at birth (years): The number of years a newborn infant boy would live if prevailing patterns of age-specific mortality rates at the time of birth were to stay the same throughout the child's life. *Aggregates:* Averages are calculated using the total male population as weight. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

1.1 Population

	Total population (Thousands)					Average annual population growth rate (Percentage)			
	1990	1995	2000	2005	2006	90-95	95-00	00-05	2006
East and North-East Asia									
China	1 149 069	1 213 732	1 269 962	1 312 979	1 320 864	1.1	0.9	0.7	0.6
DPR Korea	20 143	21 715	22 946	23 616	23 708	1.5	1.1	0.6	0.4
Hong Kong, China	5 704	6 206	6 662	7 057	7 132	1.7	1.4	1.2	1.1
Macao, China	372	412	441	473	478	2.0	1.4	1.4	0.9
Mongolia	2 216	2 389	2 470	2 581	2 605	1.5	0.7	0.9	0.9
Republic of Korea	42 869	45 008	46 780	47 870	48 050	1.0	0.8	0.5	0.4
South-East Asia									
Brunei Darussalam	257	295	333	374	382	2.8	2.5	2.3	2.2
Cambodia	9 698	11 395	12 780	13 956	14 197	3.2	2.3	1.8	1.7
Indonesia	182 847	197 411	211 693	226 063	228 864	1.5	1.4	1.3	1.2
Lao PDR	4 076	4 692	5 224	5 664	5 759	2.8	2.1	1.6	1.7
Malaysia	18 103	20 594	23 274	25 653	26 114	2.6	2.4	1.9	1.8
Myanmar	40 147	43 134	45 884	47 967	48 379	1.4	1.2	0.9	0.9
Philippines	61 226	68 587	76 213	84 566	86 264	2.3	2.1	2.1	2.0
Singapore	3 016	3 478	4 017	4 327	4 382	2.8	2.9	1.5	1.3
Thailand	54 291	57 523	60 666	63 003	63 444	1.2	1.1	0.8	0.7
Timor-Leste	740	850	819	1 067	1 114	2.8	-0.8	5.3	4.4
Viet Nam	66 173	73 330	79 094	85 029	86 206	2.1	1.5	1.4	1.4
South and South-West Asia									
Afghanistan	12 659	18 256	20 737	25 067	26 088	7.3	2.5	3.8	4.1
Bangladesh	113 049	126 297	139 434	153 281	155 991	2.2	2.0	1.9	1.8
Bhutan	547	507	559	637	649	-1.5	1.9	2.6	1.8
India	860 195	954 282	1 046 235	1 134 403	1 151 751	2.1	1.8	1.6	1.5
Iran (Islamic Rep. of)	56 674	62 199	66 125	69 421	70 270	1.9	1.2	1.0	1.2
Maldives	216	248	273	295	300	2.8	1.9	1.6	1.7
Nepal	19 114	21 672	24 419	27 094	27 641	2.5	2.4	2.1	2.0
Pakistan	112 991	127 766	144 360	158 081	160 943	2.5	2.4	1.8	1.8
Sri Lanka	17 114	18 080	18 714	19 121	19 207	1.1	0.7	0.4	0.5
Turkey	57 345	62 736	68 158	72 970	73 922	1.8	1.7	1.4	1.3
North and Central Asia									
Armenia	3 545	3 227	3 082	3 018	3 010	-1.9	-0.9	-0.4	-0.3
Azerbaijan	7 212	7 791	8 143	8 352	8 406	1.5	0.9	0.5	0.6
Georgia	5 460	5 033	4 720	4 473	4 433	-1.6	-1.3	-1.1	-0.9
Kazakhstan	16 530	15 919	14 954	15 211	15 314	-0.8	-1.3	0.3	0.7
Kyrgyzstan	4 395	4 591	4 946	5 204	5 259	0.9	1.5	1.0	1.1
Russian Federation	148 615	149 124	147 423	143 953	143 221	0.1	-0.2	-0.5	-0.5
Tajikistan	5 303	5 772	6 173	6 550	6 640	1.7	1.3	1.2	1.4
Turkmenistan	3 668	4 193	4 502	4 833	4 899	2.7	1.4	1.4	1.4
Uzbekistan	20 515	22 918	24 724	26 593	26 981	2.2	1.5	1.5	1.5
Pacific									
American Samoa	47	53	57	64	65	2.2	1.6	2.3	2.2
Cook Islands	18	18	16	14	14	0.3	-2.5	-2.7	-2.5
Fiji	724	768	802	828	833	1.2	0.9	0.6	0.6
French Polynesia	195	216	236	256	259	2.0	1.8	1.6	1.4
Guam	134	146	155	169	171	1.7	1.3	1.7	1.5
Kiribati	72	77	84	92	94	1.5	1.7	1.8	1.7
Marshall Islands	47	51	52	57	58	1.5	0.4	1.7	2.2
Micronesia (F.S.)	96	107	107	110	111	2.1	0.0	0.5	0.5
Nauru	9	10	10	10	10	1.7	0.1	0.1	0.2
New Caledonia	171	193	215	234	238	2.4	2.2	1.7	1.6
Niue	2	2	2	2	2	-0.1	-3.6	-2.8	-2.1
Northern Mariana Is.	44	58	69	80	82	5.5	3.6	3.0	2.3
Palau	15	17	19	20	20	2.7	2.4	0.9	0.5
Papua New Guinea	4 131	4 709	5 381	6 070	6 202	2.6	2.7	2.4	2.2
Samoa	161	168	177	184	185	0.8	1.1	0.7	0.8
Solomon Islands	314	362	415	472	484	2.9	2.8	2.6	2.5
Tonga	95	97	98	99	100	0.6	0.1	0.3	0.5
Tuvalu	9	10	10	10	10	0.8	0.7	0.5	0.4
Vanuatu	149	172	190	215	221	2.8	1.9	2.5	2.5
ESCAP Developed Economies									
Australia	16 873	18 072	19 139	20 310	20 530	1.4	1.1	1.2	1.1
Japan	123 537	125 472	127 034	127 897	127 953	0.3	0.2	0.1	0.0
New Zealand	3 411	3 673	3 854	4 097	4 140	1.5	1.0	1.2	1.0
ESCAP	3 276 348	3 535 812	3 775 064	3 992 091	4 034 649	1.5	1.3	1.1	1.1
LLDC	99 781	111 929	119 933	130 803	133 250	2.3	1.4	1.7	1.9
LDC	200 952	227 839	251 005	276 003	281 112	2.5	1.9	1.9	1.9
SIDS	10 406	11 810	13 206	14 677	14 955	2.5	2.2	2.1	1.9
ASEAN	439 834	480 438	519 178	556 602	563 991	1.8	1.6	1.4	1.3
SAARC	1 135 885	1 267 107	1 394 732	1 517 979	1 542 571	2.2	1.9	1.7	1.6
Central Asia	66 627	69 446	71 244	74 234	74 941	0.8	0.5	0.8	1.0
Low-income	1 295 858	1 444 130	1 586 042	1 722 694	1 749 946	2.2	1.9	1.7	1.6
Middle-income	1 783 910	1 888 473	1 980 116	2 056 297	2 070 951	1.1	0.9	0.8	0.0
High-income	196 541	203 170	208 868	213 064	213 715	0.7	0.6	0.4	0.3
Africa	637 421	726 334	820 959	922 011	943 300	2.6	2.4	2.3	2.3
Latin America & Carib.	444 271	483 860	523 048	557 979	565 048	1.7	1.6	1.3	1.3
North America	283 920	299 670	315 672	332 245	335 547	1.1	1.0	1.0	1.0
Europe	572 707	579 389	581 078	587 134	588 056	0.2	0.1	0.2	0.2
Other Asia-Pacific	80 211	93 980	108 303	123 292	126 300	3.2	2.8	2.6	2.4
World	5 294 879	5 719 045	6 124 123	6 514 751	6 592 900	1.5	1.4	1.2	1.2

1.2 Birth and death

	Crude birth rate			Crude death rate		
	Per 1,000 population			Per 1,000 population		
	90-95	95-00	00-05	90-95	95-00	00-05
East and North-East Asia						
China	18.2	16.0	13.6	7.1	6.7	6.6
DPR Korea	21.1	19.0	15.1	6.0	7.9	9.3
Hong Kong, China	12.4	10.0	8.1	5.6	5.1	5.3
Macao, China	16.9	10.9	7.4	4.5	4.2	4.3
Mongolia	29.1	21.2	19.7	8.9	7.2	6.9
Republic of Korea	15.9	13.5	10.4	5.6	5.5	5.4
South-East Asia						
Brunei Darussalam	28.2	25.1	23.6	3.2	2.9	2.8
Cambodia	41.0	32.0	27.5	11.6	10.4	10.0
Indonesia	24.3	22.0	20.7	8.2	7.2	6.6
Lao PDR	41.4	34.5	28.4	11.9	9.5	8.0
Malaysia	27.8	24.5	22.7	5.0	4.7	4.5
Myanmar	25.3	22.1	19.5	10.3	9.8	10.2
Philippines	31.7	29.1	28.1	6.3	5.5	5.1
Singapore	17.9	14.0	10.1	4.9	4.8	4.9
Thailand	18.4	17.0	15.4	7.4	8.1	8.6
Timor-Leste	43.0	45.7	41.7	15.4	12.6	10.2
Viet Nam	28.2	21.4	20.2	6.9	5.7	5.2
South and South-West Asia						
Afghanistan	52.1	52.0	49.7	22.6	22.4	21.6
Bangladesh	33.6	29.4	27.8	11.1	9.2	8.2
Bhutan	35.7	29.3	22.4	12.6	10.0	7.8
India	30.7	27.7	25.1	9.8	9.1	8.7
Iran (Islamic Rep. of)	30.6	19.5	19.0	6.7	5.6	5.5
Maldives	36.6	26.6	22.2	8.9	7.3	6.5
Nepal	38.1	34.5	30.2	12.0	9.8	8.7
Pakistan	38.7	33.3	27.5	9.8	8.8	7.7
Sri Lanka	20.4	18.2	16.3	6.5	7.0	7.3
Turkey	24.8	22.5	19.5	7.2	6.2	5.8
North and Central Asia						
Armenia	19.1	13.5	11.2	8.3	8.4	8.9
Azerbaijan	26.1	18.9	14.3	7.5	6.9	6.9
Georgia	14.8	11.8	11.1	9.8	10.2	11.1
Kazakhstan	20.6	16.2	16.7	9.6	11.6	10.6
Kyrgyzstan	28.9	24.2	21.0	7.9	8.2	7.9
Russian Federation	10.9	8.9	9.9	13.2	14.2	15.9
Tajikistan	37.2	32.7	29.4	8.9	7.7	6.6
Turkmenistan	32.5	24.5	22.9	8.4	8.0	8.3
Uzbekistan	32.6	25.2	23.7	7.4	6.7	6.8
Pacific						
American Samoa						
Cook Islands						
Fiji	27.5	25.5	23.1	6.3	6.2	6.4
French Polynesia	25.4	21.4	19.3	5.0	4.8	4.9
Guam	26.0	23.9	20.7	4.7	4.7	5.1
Kiribati						
Marshall Islands						
Micronesia (F.S.)	32.2	31.5	29.7	6.4	6.3	6.3
Nauru						
New Caledonia	23.8	21.6	18.0	5.5	5.5	5.2
Niue						
Northern Mariana Is.						
Palau						
Papua New Guinea	36.7	36.9	34.0	10.6	10.2	9.9
Samoa	31.1	33.1	29.4	6.9	6.2	5.7
Solomon Islands	38.7	36.3	33.6	10.2	8.7	7.9
Tonga	29.9	26.6	24.3	5.9	5.7	5.7
Tuvalu						
Vanuatu	36.5	33.9	31.0	7.1	6.7	5.7
ESCAP Developed Economies						
Australia	14.7	13.5	12.7	7.0	7.0	6.8
Japan	9.7	9.6	9.0	7.0	7.6	8.0
New Zealand	17.1	14.9	14.2	7.6	7.4	7.1
ESCAP	24.0	21.3	19.3	8.5	8.0	7.8
LLDC	34.0	30.2	28.2	11.2	11.0	10.5
LDC	34.3	30.7	28.5	11.9	10.5	9.9
SIDS	30.2	28.5	25.3	8.4	7.9	7.6
ASEAN	26.0	22.8	21.2	7.8	7.0	6.7
SAARC	32.1	28.8	26.0	10.1	9.2	8.7
Central Asia	27.1	21.6	20.1	8.4	8.4	8.1
Low-income	31.8	28.2	25.5	9.9	9.0	8.6
Middle-income	19.6	17.1	15.3	7.7	7.3	7.3
High-income	11.9	11.1	9.8	6.6	6.9	7.1
Africa	40.8	38.8	37.6	14.3	14.0	13.9
Latin America & Carib.	25.3	23.2	21.5	6.6	6.1	6.0
North America	15.5	14.1	13.8	8.7	8.2	8.2
Europe	11.7	10.5	10.2	10.7	10.8	10.6
Other Asia-Pacific	35.7	32.9	30.2	7.1	6.6	6.2
World	24.7	22.6	21.1	9.3	8.9	8.8

1.3 Children and elderly

	Proportion of children in total population					Proportion of elderly in total population				
	Percentage					Percentage				
	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006
East and North-East Asia										
China	27.7	26.6	24.9	21.6	21.1	5.4	6.0	6.8	7.7	7.8
DPR Korea	26.2	26.9	25.9	24.2	23.6	4.7	5.7	6.9	8.5	8.8
Hong Kong, China	21.5	19.4	16.9	15.1	14.8	8.5	9.6	11.0	12.0	12.1
Macao, China	25.7	26.1	22.4	16.1	15.2	6.5	7.0	7.4	7.5	7.5
Mongolia	41.7	38.9	34.5	28.9	28.0	4.0	3.7	3.9	3.9	4.0
Republic of Korea	25.8	23.4	20.8	18.6	18.1	5.0	5.8	7.4	9.4	9.8
South-East Asia										
Brunei Darussalam	34.5	33.0	31.3	29.6	29.2	2.7	2.7	2.9	3.2	3.2
Cambodia	44.7	46.3	41.9	37.6	36.7	2.7	2.8	2.9	3.1	3.2
Indonesia	35.8	33.0	30.3	28.4	28.0	3.8	4.2	4.9	5.5	5.6
Lao PDR	44.7	44.6	43.4	39.8	38.9	3.4	3.4	3.4	3.5	3.5
Malaysia	37.4	36.1	33.5	31.4	31.0	3.7	3.7	3.9	4.4	4.4
Myanmar	35.6	33.1	30.2	27.3	26.7	4.9	5.2	5.5	5.6	5.6
Philippines	40.9	39.5	37.8	36.2	35.8	3.2	3.2	3.5	3.8	3.9
Singapore	21.5	22.3	21.8	19.5	18.8	5.6	6.2	7.2	8.5	8.8
Thailand	28.5	25.8	23.6	21.7	21.4	4.9	5.7	6.7	7.8	8.0
Timor-Leste	39.9	41.7	49.4	45.0	44.7	2.0	2.3	2.5	2.7	2.7
Viet Nam	38.9	37.0	33.5	29.6	28.9	4.9	5.0	5.5	5.6	5.6
South and South-West Asia										
Afghanistan	46.2	46.9	47.3	47.0	46.9	2.3	2.3	2.2	2.2	2.2
Bangladesh	40.7	39.6	37.2	35.2	34.7	3.0	3.1	3.3	3.5	3.6
Bhutan	42.6	43.6	40.2	33.0	31.7	3.3	3.8	4.4	4.6	4.7
India	37.8	36.6	35.0	33.0	32.5	3.9	4.2	4.6	5.0	5.0
Iran (Islamic Rep. of)	44.7	42.4	35.1	28.8	27.8	3.5	4.1	4.5	4.5	4.5
Maldives	46.5	45.3	40.3	34.0	32.9	3.3	3.5	3.7	3.8	3.8
Nepal	41.9	41.8	40.9	39.0	38.5	3.4	3.4	3.5	3.7	3.7
Pakistan	44.0	44.3	41.8	37.2	36.4	3.3	3.5	3.7	3.9	3.9
Sri Lanka	32.0	29.5	26.8	24.2	23.7	5.4	6.0	6.5	6.5	6.6
Turkey	35.7	33.0	30.5	28.3	27.9	4.0	4.5	5.2	5.6	5.7
North and Central Asia										
Armenia	30.4	29.5	25.9	20.8	20.0	5.6	8.4	10.0	12.1	12.1
Azerbaijan	34.3	34.0	31.0	25.3	24.2	4.2	4.9	5.9	7.2	7.2
Georgia	24.6	23.6	21.6	18.9	18.4	9.3	11.3	12.5	14.3	14.4
Kazakhstan	31.5	29.8	27.6	24.2	23.9	5.9	7.1	6.8	8.0	8.0
Kyrgyzstan	37.6	37.6	34.9	31.0	30.4	5.0	5.4	5.5	5.9	5.8
Russian Federation	23.0	21.4	18.1	15.1	14.9	10.0	11.8	12.3	13.8	13.7
Tajikistan	43.2	43.7	42.4	39.4	38.7	3.8	3.8	3.5	3.9	3.9
Turkmenistan	40.5	39.5	36.2	31.8	30.9	3.8	4.2	4.4	4.7	4.6
Uzbekistan	40.9	40.4	37.2	33.2	32.4	4.0	4.3	4.3	4.7	4.7
Pacific										
American Samoa										
Cook Islands										
Fiji	37.9	35.7	34.0	32.9	32.6	3.1	3.1	3.5	4.2	4.3
French Polynesia	35.3	33.9	31.5	27.4	26.9	3.2	3.7	4.3	5.2	5.3
Guam	30.2	30.9	30.5	29.4	29.0	3.9	4.7	5.4	6.5	6.7
Kiribati										
Marshall Islands										
Micronesia (F.S.)	44.1	43.4	40.1	38.6	38.3	3.6	3.5	3.7	3.8	3.8
Nauru										
New Caledonia	32.3	30.9	29.7	27.1	26.6	4.6	4.8	5.6	6.6	6.8
Niue										
Northern Mariana Is.										
Palau										
Papua New Guinea	41.7	41.4	41.3	40.6	40.3	2.2	2.2	2.2	2.4	2.4
Samoa	40.9	39.3	40.9	40.8	40.5	3.9	4.2	4.4	4.6	4.6
Solomon Islands	45.3	43.6	42.0	40.5	40.1	3.0	3.0	2.9	2.9	3.0
Tonga	39.4	40.0	38.3	37.5	37.2	4.5	5.0	5.6	6.4	6.5
Tuvalu										
Vanuatu	43.9	43.4	42.1	39.8	39.3	3.6	3.5	3.3	3.3	3.3
ESCAP Developed Economies										
Australia	21.9	21.5	20.7	19.5	19.3	11.2	11.9	12.4	13.1	13.3
Japan	18.4	16.0	14.6	13.9	13.8	12.0	14.6	17.2	19.7	20.3
New Zealand	23.4	23.1	22.7	21.5	21.2	11.1	11.5	11.8	12.2	12.3
ESCAP	34.1	33.1	31.3	29.0	28.5	5.9	6.7	7.4	8.3	8.4
LLDC	40.1	40.4	39.2	37.2	36.8	4.3	4.9	5.0	5.6	5.6
LDC	40.7	40.0	38.1	36.2	35.8	3.6	3.7	3.9	4.0	4.0
SIDS	37.5	37.2	37.3	36.2	35.9	4.1	4.5	5.3	6.2	6.4
ASEAN	36.7	34.8	32.2	29.9	29.5	4.2	4.6	5.1	5.7	5.8
SAARC	38.9	38.1	36.3	34.1	33.6	3.8	4.1	4.4	4.8	4.8
Central Asia	36.7	36.5	34.2	30.5	29.8	5.5	6.5	6.7	7.7	7.7
Low-income	38.9	38.0	36.2	33.8	33.3	3.9	4.2	4.5	4.9	4.9
Middle-income	30.5	29.0	26.9	24.0	23.6	5.9	6.6	7.3	8.1	8.1
High-income	21.1	19.2	17.6	16.3	16.0	11.0	13.1	15.3	17.4	17.8
Africa	44.9	44.1	43.1	42.2	42.1	3.2	3.3	3.4	3.6	3.6
Latin America & Carib.	36.6	34.5	32.3	30.4	30.0	5.4	5.8	6.2	6.7	6.8
North America	21.7	21.9	21.4	20.6	20.4	12.1	12.3	12.3	12.3	12.4
Europe	20.3	19.1	17.6	16.3	16.1	13.8	14.7	15.6	16.7	16.8
Other Asia-Pacific	44.8	43.0	40.9	38.5	38.1	4.1	4.4	4.5	4.5	4.5
World	32.6	31.7	30.2	28.3	28.0	6.1	6.5	6.9	7.3	7.4

1.4 Women and girls

	Population sex ratio					Child sex ratio				
	Women per 100 men					Girls per 100 boys				
	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006
East and North-East Asia										
China	94	94	94	94	94	91	89	88	86	86
DPR Korea	104	104	104	103	103	96	96	96	95	95
Hong Kong, China	95	101	107	108	108	93	95	96	95	95
Macao, China	106	107	108	109	109	93	95	95	95	95
Mongolia	100	100	100	100	101	98	96	96	96	96
Republic of Korea	99	99	100	100	100	89	96	91	91	91
South-East Asia										
Brunei Darussalam	89	91	92	93	93	92	94	94	94	94
Cambodia	110	108	106	106	105	97	97	96	96	96
Indonesia	100	100	100	100	100	97	96	96	96	96
Lao PDR	100	100	100	101	101	97	96	96	96	96
Malaysia	97	97	97	97	97	94	95	95	95	95
Myanmar	101	101	101	102	102	97	97	97	97	97
Philippines	99	99	99	99	99	96	96	95	95	95
Singapore	99	99	99	99	99	93	93	93	93	93
Thailand	102	102	104	105	105	96	96	95	95	95
Timor-Leste	94	95	96	97	97	94	96	96	96	96
Viet Nam	101	100	100	100	100	96	96	96	96	96
South and South-West Asia										
Afghanistan	93	93	93	93	93	94	95	95	94	94
Bangladesh	94	95	95	95	95	95	96	95	96	96
Bhutan	95	97	97	90	89	98	98	97	97	97
India	92	92	93	93	93	93	92	92	92	92
Iran (Islamic Rep. of)	95	96	97	97	97	95	95	95	95	95
Maldives	95	95	95	95	95	97	95	95	96	96
Nepal	98	101	101	102	102	94	95	95	95	95
Pakistan	94	94	94	94	94	94	95	95	95	95
Sri Lanka	98	99	100	102	103	97	96	96	96	96
Turkey	98	98	98	98	99	97	96	96	96	96
North and Central Asia										
Armenia	106	111	113	114	115	97	94	87	85	85
Azerbaijan	104	104	105	106	106	94	95	92	86	86
Georgia	110	110	111	112	112	95	94	91	91	91
Kazakhstan	107	107	109	109	109	97	96	95	95	95
Kyrgyzstan	104	103	103	103	103	97	96	96	96	96
Russian Federation	113	113	114	115	116	96	95	95	95	95
Tajikistan	101	100	100	101	102	97	96	96	96	96
Turkmenistan	103	103	103	103	103	97	97	97	97	97
Uzbekistan	102	102	101	101	101	97	96	96	96	96
Pacific										
American Samoa	95	95	96	96	96					
Cook Islands	92	93	94	94	94					
Fiji	97	97	97	97	97	94	94	94	94	94
French Polynesia	92	92	94	95	95	95	93	95	95	95
Guam	88	92	96	96	96	96	95	94	94	94
Kiribati	103	102	103	103	103					
Marshall Islands	96	96	95	96	96					
Micronesia (F.S.)	96	96	98	97	97	93	93	95	94	93
Nauru	101	101	101	102	102					
New Caledonia	96	95	97	98	99	94	93	96	95	95
Niue	102	102	103	104	104					
Northern Mariana Is.	91	101	118	129	130					
Palau	85	84	83	86	86					
Papua New Guinea	93	95	96	97	97	94	94	94	94	94
Samoa	90	92	92	92	92	92	93	93	93	93
Solomon Islands	93	93	93	93	93	92	92	92	92	92
Tonga	98	97	97	96	96	93	92	94	94	94
Tuvalu	104	106	108	110	111					
Vanuatu	94	95	95	96	96	92	92	94	94	94
ESCAP Developed Economies										
Australia	100	101	101	101	101	95	95	95	95	95
Japan	104	104	104	105	105	95	95	95	95	95
New Zealand	103	103	104	103	103	96	94	94	95	95
ESCAP	96	96	96	96	96	93	93	92	92	92
LLDC	101	101	101	101	101	96	95	95	95	95
LDC	97	97	97	97	97	95	96	96	96	96
SIDS	95	96	97	97	97	94	94	94	94	94
ASEAN	100	100	100	101	101	96	96	96	96	96
SAARC	93	93	93	94	94	93	93	93	93	93
Central Asia	105	104	104	105	105	96	96	95	95	95
Low-income	94	94	94	95	95	94	93	93	93	93
Middle-income	97	97	97	97	97	93	92	91	90	90
High-income	102	102	103	103	103	93	95	94	94	94
Africa	101	101	101	101	101	98	98	98	98	98
Latin America & Carib.	101	102	102	103	103	96	96	96	96	96
North America	104	103	103	103	103	95	95	95	95	95
Europe	106	106	106	106	106	95	95	95	95	95
Other Asia-Pacific	91	91	92	92	92	96	96	96	96	96
World	98	98	98	98	98	95	94	94	94	94

1.5 Fertility

	Total fertility rate Live births per woman			Adolescent fertility rate Live births per 1,000 girls aged 15-19	
	90-95	95-00	00-05	95-00	00-05
East and North-East Asia					
China	1.9	1.8	1.7	6.3	2.3
DPR Korea	2.4	2.1	1.9	1.6	1.5
Hong Kong, China	1.3	1.1	0.9	6.0	5.3
Macao, China	1.6	1.1	0.8	6.1	4.6
Mongolia	3.4	2.4	2.1	41.5	49.7
Republic of Korea	1.7	1.5	1.2	2.8	3.2
South-East Asia					
Brunei Darussalam	3.1	2.7	2.5	34.2	30.7
Cambodia	5.5	4.5	3.6	57.7	49.3
Indonesia	2.9	2.6	2.4	52.3	47.3
Lao PDR	5.9	4.7	3.6	90.5	88.4
Malaysia	3.5	3.1	2.9	16.1	14.5
Myanmar	3.1	2.7	2.2	24.0	18.9
Philippines	4.1	3.7	3.5	46.9	51.6
Singapore	1.8	1.6	1.4	7.4	5.6
Thailand	2.0	1.9	1.8	49.0	44.6
Timor-Leste	5.7	7.0	7.0	114.3	64.3
Viet Nam	3.3	2.5	2.3	24.9	21.1
South and South-West Asia					
Afghanistan	8.0	8.0	7.5	166.2	131.9
Bangladesh	4.1	3.5	3.2	151.5	149.2
Bhutan	5.4	4.2	2.9	73.2	50.9
India	3.9	3.5	3.1	99.5	68.9
Iran (Islamic Rep. of)	4.3	2.5	2.1	46.1	24.3
Maldives	5.6	3.8	2.8	45.4	26.2
Nepal	5.0	4.4	3.7	127.2	122.2
Pakistan	5.8	5.0	4.0	68.8	22.0
Sri Lanka	2.5	2.2	2.0	29.4	28.3
Turkey	2.9	2.6	2.2	58.4	46.0
North and Central Asia					
Armenia	2.4	1.8	1.3	53.0	30.9
Azerbaijan	2.9	2.2	1.7	41.0	28.9
Georgia	2.0	1.6	1.5	55.6	35.0
Kazakhstan	2.6	2.0	2.0	40.0	28.4
Kyrgyzstan	3.6	3.0	2.5	37.6	31.5
Russian Federation	1.5	1.2	1.3	35.7	29.8
Tajikistan	4.9	4.3	3.8	35.9	31.6
Turkmenistan	4.0	3.0	2.8	17.8	16.9
Uzbekistan	3.9	3.0	2.7	40.9	37.2
Pacific					
American Samoa					
Cook Islands					
Fiji	3.4	3.2	3.0	52.9	41.7
French Polynesia	3.1	2.6	2.4	57.8	43.7
Guam	3.1	3.0	2.7	78.2	54.5
Kiribati					
Marshall Islands					
Micronesia (F.S.)	4.8	4.5	4.2	44.8	35.8
Nauru					
New Caledonia	2.9	2.6	2.2	32.8	28.0
Niue					
Northern Mariana Is.					
Palau					
Papua New Guinea	4.7	4.6	4.3	89.8	70.2
Samoa	4.7	4.7	4.4	45.4	36.8
Solomon Islands	5.5	4.9	4.4	63.0	51.2
Tonga	4.5	4.0	3.7	16.6	17.7
Tuvalu					
Vanuatu	4.8	4.6	4.2	62.0	52.5
ESCAP Developed Economies					
Australia	1.9	1.8	1.8	19.3	17.0
Japan	1.5	1.4	1.3	4.5	3.7
New Zealand	2.1	2.0	2.0	31.2	27.1
ESCAP	2.9	2.6	2.4	55.0	40.6
LLDC	4.4	3.9	3.5	80.8	70.2
LDC	4.3	3.8	3.4	120.0	114.5
SIDS	3.6	3.5	3.3	65.2	49.2
ASEAN	3.1	2.7	2.5	43.1	39.8
SAARC	4.1	3.7	3.3	102.3	73.3
Central Asia	3.3	2.6	2.4	39.9	31.9
Low-income	4.0	3.6	3.2	94.5	68.3
Middle-income	2.2	2.0	1.9	23.0	17.1
High-income	1.6	1.5	1.3	6.2	5.8
Africa	5.7	5.3	5.0	120.3	114.5
Latin America & Carib.	3.0	2.7	2.5	85.4	80.2
North America	2.0	2.0	2.0	20.1	13.4
Europe	1.6	1.4	1.4	19.9	16.9
Other Asia-Pacific	5.4	4.8	4.2	54.9	44.3
World	3.0	2.8	2.7	65.4	55.3

1.6 Life expectancy

	Female life expectancy at birth			Male life expectancy at birth		
	Years			Years		
	90-95	95-00	00-05	90-95	95-00	00-05
East and North-East Asia						
China	70.3	72.0	73.7	67.4	69.0	70.5
DPR Korea	73.7	71.0	68.8	66.1	64.0	64.2
Hong Kong, China	81.0	83.0	84.5	75.5	77.2	78.6
Macao, China	79.8	80.9	82.2	75.2	76.5	77.6
Mongolia	63.2	66.3	68.4	59.4	61.1	61.9
Republic of Korea	76.5	78.5	80.6	68.5	70.9	73.5
South-East Asia						
Brunei Darussalam	77.1	78.1	78.9	72.4	73.4	74.2
Cambodia	57.3	58.4	59.5	54.1	54.4	53.7
Indonesia	64.5	67.9	70.5	61.1	64.2	66.7
Lao PDR	57.3	60.7	63.1	54.9	58.2	60.7
Malaysia	73.1	74.5	75.5	68.7	69.6	70.8
Myanmar	61.6	63.0	63.4	57.3	57.8	56.7
Philippines	68.7	70.7	72.5	64.5	66.5	68.2
Singapore	78.3	79.3	80.8	73.9	75.1	76.8
Thailand	71.2	72.8	74.0	64.0	62.8	63.7
Timor-Leste	50.1	55.2	59.1	48.5	53.6	57.5
Viet Nam	69.6	72.4	74.9	66.1	69.0	71.2
South and South-West Asia						
Afghanistan	41.7	41.8	42.1	41.7	41.8	42.2
Bangladesh	56.7	59.9	62.8	55.5	59.0	61.3
Bhutan	56.3	60.8	65.2	53.0	57.3	61.8
India	60.8	62.7	64.2	59.9	61.0	61.7
Iran (Islamic Rep. of)	67.1	69.3	71.0	64.7	66.9	68.0
Maldives	59.8	62.6	65.6	62.3	64.3	65.6
Nepal	55.6	59.6	61.6	55.8	59.1	61.0
Pakistan	61.4	62.2	63.9	60.5	61.4	63.3
Sri Lanka	74.0	74.3	75.0	67.5	66.9	67.0
Turkey	68.5	71.2	73.3	64.0	66.6	68.5
North and Central Asia						
Armenia	72.1	73.7	74.6	65.3	66.9	67.9
Azerbaijan	69.5	70.0	70.5	62.2	62.6	63.2
Georgia	74.3	74.3	74.3	66.5	66.5	66.5
Kazakhstan	70.3	68.9	70.6	60.5	57.5	59.5
Kyrgyzstan	70.1	69.0	69.4	62.1	61.0	61.4
Russian Federation	72.6	72.2	71.8	60.5	59.6	58.5
Tajikistan	65.9	66.9	68.6	60.8	61.7	63.4
Turkmenistan	67.6	67.2	66.7	59.2	58.8	58.2
Uzbekistan	69.4	69.7	69.7	63.0	63.3	63.3
Pacific						
American Samoa						
Cook Islands						
Fiji	68.8	69.1	70.1	64.6	64.8	65.7
French Polynesia	72.8	74.6	75.8	67.9	69.5	70.6
Guam	75.0	76.0	77.0	70.4	71.4	72.4
Kiribati						
Marshall Islands						
Micronesia (F.S.)	67.0	67.6	68.2	65.9	66.5	66.9
Nauru						
New Caledonia	74.5	76.1	78.7	69.2	69.8	71.9
Niue						
Northern Mariana Is.						
Palau						
Papua New Guinea	58.5	59.5	59.9	53.0	53.7	54.1
Samoa	69.7	71.9	73.5	63.1	65.4	67.1
Solomon Islands	58.8	61.3	63.0	57.9	60.3	61.6
Tonga	71.4	72.2	73.3	69.0	70.2	71.3
Tuvalu						
Vanuatu	65.9	68.3	70.4	62.9	65.0	66.8
ESCAP Developed Economies						
Australia	80.6	81.5	82.9	74.7	75.9	77.9
Japan	82.4	83.8	85.2	76.2	77.1	78.3
New Zealand	78.9	80.1	81.3	73.3	75.0	77.0
ESCAP	67.0	68.5	70.0	63.7	65.0	66.2
LLDC	62.3	62.5	63.1	57.3	57.4	58.1
LDC	56.6	59.0	60.9	54.8	57.1	58.4
SIDS	65.9	67.3	68.5	61.3	62.7	63.9
ASEAN	66.7	69.2	71.2	62.5	64.6	66.3
SAARC	60.3	62.1	63.8	59.3	60.6	61.6
Central Asia	69.8	69.7	70.2	62.2	61.7	62.4
Low-income	61.0	62.8	64.4	59.6	60.9	61.8
Middle-income	69.8	71.4	73.0	65.8	67.2	68.7
High-income	80.8	82.2	83.8	74.2	75.5	77.1
Africa	55.0	54.7	54.3	51.6	51.5	51.8
Latin America & Carib.	72.5	74.1	75.5	65.9	67.7	69.1
North America	79.1	79.5	80.3	72.5	73.8	74.9
Europe	78.1	78.9	80.0	70.9	71.9	73.3
Other Asia-Pacific	67.1	68.3	69.2	64.2	65.3	65.9
World	66.3	67.4	68.3	62.1	63.0	63.9

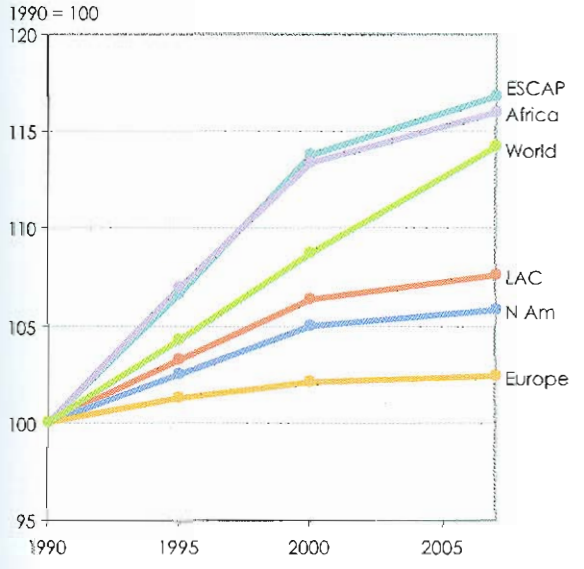
2. Urbanization

This year represents a turning point in human geography. For the first time in history, there are more people living in cities than in rural areas.

Rural-urban migration is directly linked to the development process of countries. The significant social, economic and political consequences of population changes make it vital to understand how the distribution of people between rural and urban areas evolves over time.

Although the Asian and the Pacific region, along with Africa, is still one of the least urbanized regions of the world, its urban population has been growing at the fastest pace during the last decade and a half. In 1990, 33 per cent of the population of Asia lived in urban areas, compared with 41 per cent today. The fastest influx of people from rural areas to cities has occurred in ASEAN countries, where the urbanization rate rose from 32 per cent in 1990 to 45 per cent in 2006.

Figure 2.1 Index of change in the urbanization rate in the regions of the world, 1990-2006

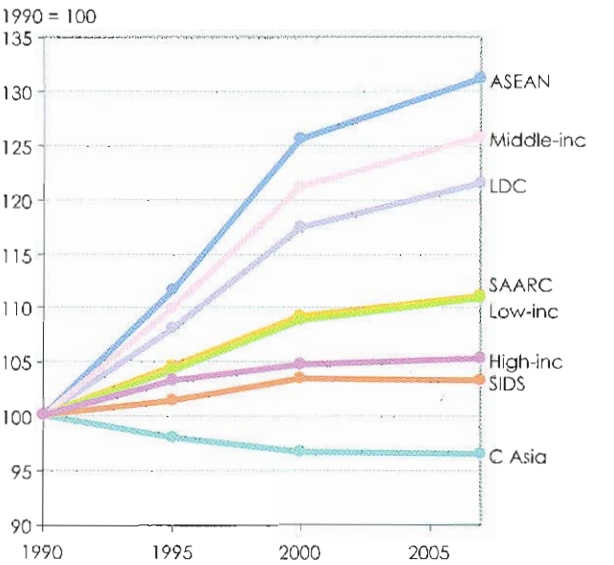


Urbanization has been an integral part of the rapid economic growth experienced by Asia and the Pacific in recent decades. Rural-urban migration in middle-income countries increased by 12 percentage points over the last decade and a half, mobilizing the labour force needed in these expanding economies.

In 1990, just under half the population of ASEAN member countries Malaysia and the Philippines lived in urban areas; by 2006, that number had reached about two thirds. Over the same period, the proportion of Indonesians living in cities increased from less than one third to almost half. The urbanization rate also increased considerably in China, the Islamic Republic of Iran and Turkey, among others.

The Central Asian countries and the landlocked developing countries were the only subgroups that experienced a decline in the urban population, by 2 percentage points between 1990 and 2006. The fall in the urbanization rate of the Central Asian countries is partly due to international migration, which is covered in the next section.

Figure 2.2 Index of change in the urbanization rate in selected Asian and Pacific country groupings, 1990-2006



Although urbanization has contributed to economic growth, it has also driven up urban poverty. This phenomenon is particularly evident in heavily populated slums characterized by substandard housing and poor access to basic services.

In Asia and the Pacific, two out of five urban dwellers live in slums, compared with three out of five in Africa. Still, the share of the urban population living in such conditions, at 44 per cent, is notably higher than the 33 per cent prevailing in Latin America and the Caribbean.

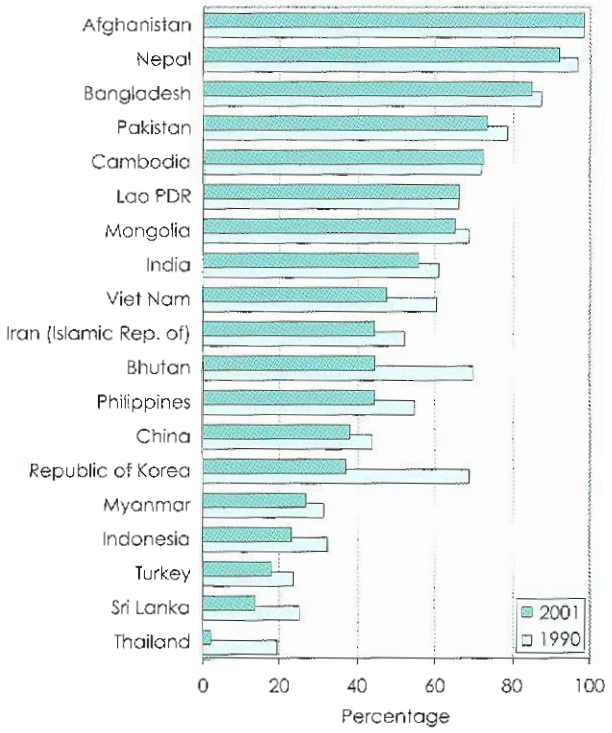
The share of the urban population living in slums in ASEAN countries has decreased by 10 percentage points in just over a decade, faster than anywhere else in the Asian and the Pacific region. In Cambodia and the Lao People's Democratic Republic, however, the proportion of urban dwellers living in slums has remained constant, in contrast with the other ASEAN countries.

Riding on the strength of economies that boomed for most of the 1990s, the Republic of

Korea and Thailand are two countries that have achieved impressive reductions in the number of urban slum-dwellers. Other countries in the region, however, have fared quite differently.

In least developed countries that are members of SAARC, there are continuously large numbers of people living in slums. In Afghanistan, 99 per cent of the urban population lives in slums, and Nepal and Bangladesh continue to have high proportions — 92 and 85 per cent, respectively — of the urban population living in slums, although they have had some success in containing the problem.

Figure 2.3 Share of slum population in urban areas in selected Asian and Pacific countries, 1990 and 2001



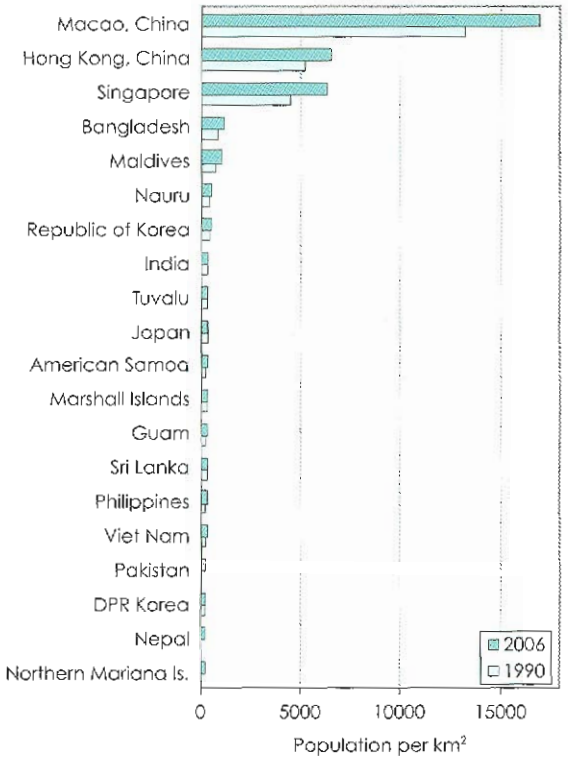
Whether they are a consequence or a cause of high population density, large slum settlements in Bangladesh make the country one of the 10 most densely populated countries in the world.

The Asian and Pacific region has the second highest population density in the world after Europe. It is more than twice the level of Africa and close to three times that of Latin America and the Caribbean. Population density in Africa, however, increased by over 48 per cent between 1990 and 2005, a much faster pace than the 23 per cent increase registered in Asia and the Pacific.

Macao, China, has the highest population density not only in the region, but in the entire world, at 16,934 persons per square kilometre. In the region, it is followed by Hong Kong, China, and Singapore, which both have over 6,500 persons per square kilometre.

In Asia and the Pacific, the SAARC member countries and the least developed countries especially have become more densely populated; as groups, they have the highest population densities in the world. The SAARC region has a density of 300 people per square kilometre, compared with 126 in the ASEAN region, and 18 in the Central Asian countries — equivalent to the population density of North America.

Figure 2.4 Population density in selected Asian and Pacific countries, 1990 and 2006



Urbanization rate (percentage of total population): Population living in areas classified as urban according to the administrative criteria used by each country or area, as a percentage of the total population. *Aggregates:* Averages are calculated using total population as weight. *Source:* *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Average annual urban population growth rate (percentage): The rate of change of the urban population. Reported for five-year periods starting and ending in the middle of the indicated years. *Aggregates:* Averages are calculated using urban population as weight. *Source:* Calculated by ESCAP using data from *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Slum population (percentage of urban population): Number of people in households living in slum dwellings. Reported as a share of the urban population. A slum household is a group of individuals living under the same roof who lack one or more (in some cities, two or more) of the following conditions: security of tenure, structural quality and durability of dwellings, access to safe water, access to sanitation facilities and sufficient living area. *Aggregates:* Averages are calculated using the urban population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Population density (population per km²): Number of people per square kilometre of the surface area. Total surface area comprises total land area, inland and tidal water area. *Aggregates:* Averages are calculated as total population divided by total surface area. *Source:* Calculated by ESCAP using data from *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007) and United Nations Common database (online database, accessed in September 2007).

2.1 Urbanization

	Urbanization rate					Average annual urban population growth rate				Slum population	
	% of total population					Percentage				% of urban population	
	1990	1995	2000	2005	2006	90-95	95-00	00-05	2006	1990	2001
East and North-East Asia											
China	27.4	31.4	35.8	40.4	41.3	3.9	3.6	3.2	2.9	43.6	37.8
DPR Korea	58.4	59.1	60.2	61.6	61.9	1.8	1.5	1.0	0.9		
Hong Kong, China	99.5	100.0	100.0	100.0	100.0	1.8	1.4	1.2	1.1		
Macao, China	99.8	99.9	100.0	100.0	100.0	2.1	1.4	1.4	0.9		
Mongolia	57.0	56.8	56.6	56.7	56.8	1.4	0.6	0.9	1.1	68.5	64.9
Republic of Korea	73.8	78.2	79.6	80.8	81.0	2.2	1.1	0.8	0.7	68.5	37.0
South-East Asia											
Brunei Darussalam	65.8	68.6	71.1	73.5	74.0	3.7	3.2	3.0	2.8		
Cambodia	12.6	14.2	16.9	19.7	20.3	5.7	6.0	5.0	4.8	71.7	72.2
Indonesia	30.6	35.6	42.0	48.1	49.3	4.6	4.8	4.1	3.7	32.2	23.1
Lao PDR	15.4	17.2	18.9	20.6	21.0	5.1	4.1	3.5	3.5	66.1	66.1
Malaysia	49.8	55.6	61.8	67.3	68.3	4.9	4.7	3.7	3.3		
Myanmar	24.9	26.1	28.0	30.6	31.3	2.4	2.7	2.7	2.9	31.1	26.4
Philippines	48.8	54.0	58.5	62.7	63.5	4.4	3.8	3.5	3.3	54.9	44.1
Singapore	100.0	100.0	100.0	100.0	100.0	2.9	2.9	1.5	1.3		
Thailand	29.4	30.3	31.1	32.3	32.6	1.7	1.6	1.5	1.6	19.5	2.0
Timor-Leste	20.8	22.7	24.5	26.5	26.9	4.5	0.8	7.1	6.0		
Viet Nam	20.3	22.2	24.3	26.4	26.9	4.0	3.4	3.2	3.2	60.5	47.4
South and South-West Asia											
Afghanistan	18.3	19.7	21.3	22.9	23.3	9.2	4.1	5.4	5.7	98.5	98.5
Bangladesh	19.8	21.5	23.2	25.1	25.5	4.0	3.6	3.5	3.5	87.3	84.7
Bhutan	7.2	8.3	9.6	11.1	11.4	1.4	5.0	5.7	4.8	70.0	44.1
India	25.5	26.6	27.7	28.7	29.0	2.9	2.7	2.4	2.4	60.8	55.5
Iran (Islamic Rep. of)	56.3	60.2	64.2	66.9	67.5	3.3	2.5	1.8	2.0	51.9	44.2
Maldives	25.8	25.6	27.5	29.6	30.1	2.7	3.4	3.1	3.3		
Nepal	8.9	10.9	13.4	15.8	16.2	6.9	6.8	5.4	5.1	96.9	92.4
Pakistan	30.6	31.8	33.1	34.9	35.2	3.3	3.3	2.9	3.0	78.7	73.6
Sri Lanka	17.2	16.4	15.7	15.1	15.1	0.2	-0.2	-0.3	0.1	24.8	13.6
Turkey	59.2	62.1	64.7	67.3	67.8	2.8	2.5	2.2	2.0	23.3	17.9
North and Central Asia											
Armenia	67.5	66.3	65.1	64.1	63.9	-2.2	-1.3	-0.7	-0.5		
Azerbaijan	53.7	52.2	50.9	51.5	51.5	1.0	0.4	0.7	0.7		
Georgia	55.2	54.0	52.7	52.2	52.3	-2.1	-1.7	-1.2	-0.8		
Kazakhstan	56.3	55.9	56.3	57.3	57.6	-0.9	-1.1	0.7	1.1		
Kyrgyzstan	37.8	36.3	35.4	35.8	35.9	0.1	1.0	1.2	1.4		
Russian Federation	73.4	73.4	73.4	73.0	72.9	0.1	-0.2	-0.6	-0.7		
Tajikistan	31.5	28.0	25.9	24.7	24.5	-0.7	-0.2	0.2	0.7		
Turkmenistan	45.1	44.7	45.1	46.2	46.6	2.6	1.6	1.9	2.1		
Uzbekistan	40.1	38.4	37.3	36.7	36.7	1.4	0.9	1.2	1.4		
Pacific											
American Samoa											
Cook Islands											
Fiji	41.6	45.5	48.3	50.8	51.3	3.0	2.1	1.7	1.6		
French Polynesia	55.9	53.5	52.4	51.7	51.6	1.1	1.4	1.3	1.3		
Guam	90.8	92.1	93.2	94.0	94.2	2.0	1.5	1.9	1.6		
Kiribati											
Marshall Islands											
Micronesia (F.S.)	25.8	25.1	22.3	22.3	22.4	1.6	-2.3	0.5	0.6		
Nauru											
New Caledonia	59.6	60.3	61.9	63.7	64.0	2.7	2.7	2.3	2.2		
Niue											
Northern Mariana Is.											
Palau											
Papua New Guinea	13.1	13.2	13.2	13.4	13.5	2.7	2.7	2.7	2.8		
Samoa	21.2	21.5	21.9	22.4	22.6	1.1	1.4	1.2	1.5		
Solomon Islands	13.7	14.7	15.7	17.0	17.3	4.3	4.2	4.2	4.2		
Tonga	22.7	22.9	23.2	24.0	24.2	0.7	0.4	0.9	1.4		
Tuvalu											
Vanuatu	18.7	20.2	21.7	23.5	23.8	4.4	3.5	4.2	4.2		
ESCAP Developed Economies											
Australia	85.4	86.1	87.2	88.2	88.4	1.5	1.4	1.4	1.3		
Japan	63.1	64.6	65.2	65.8	66.0	0.8	0.4	0.3	0.3		
New Zealand	84.7	85.3	85.7	86.2	86.3	1.6	1.0	1.4	1.2		
ESCAP	33.3	35.5	37.9	40.4	40.9	2.8	2.7	2.4	2.3	50.9	43.5
LLDC	34.8	33.3	32.8	33.0	33.1	1.4	1.1	1.9	2.2		
LDC	19.2	20.7	22.5	24.5	25.0	4.1	3.7	3.7	3.7	72.9	72.2
SIDS	44.9	45.5	46.4	46.0	46.0	2.9	2.7	1.9	1.8		
ASEAN	31.6	35.3	39.7	44.0	44.9	4.0	4.0	3.5	3.3	39.4	29.5
SAARC	25.0	26.1	27.3	28.5	28.8	3.1	2.8	2.6	2.6	65.2	60.8
Central Asia	56.8	55.7	55.0	54.8	54.8	0.0	-0.1	0.7	1.0		
Low-income	25.6	26.6	27.8	29.1	29.4	3.0	2.8	2.6	2.6	64.3	59.5
Middle-income	35.0	38.4	42.4	46.4	47.2	3.1	2.9	2.6	2.4	41.2	34.4
High-income	69.4	71.7	72.7	73.6	73.8	1.3	0.8	0.7	0.6		
Africa	32.0	34.2	36.3	38.4	38.8	4.0	3.7	3.5	3.5	62.9	61.4
Latin America & Carib.	70.9	73.2	75.4	77.4	77.8	2.4	2.2	1.8	1.7	37.0	33.3
North America	75.4	77.3	79.1	80.7	81.0	1.6	1.5	1.4	1.4		
Europe	70.2	71.0	71.6	72.4	72.5	0.5	0.2	0.4	0.4		
Other Asia-Pacific	63.1	63.8	64.2	64.6	64.7	3.4	3.0	2.7	2.6	36.1	37.2
World	43.0	44.8	46.7	48.7	49.1	2.4	2.2	2.1	2.0		

2.2 Density

	Population density			
	Population per km²			
	1990	2000	2005	2006
East and North-East Asia				
China	120	132	137	138
DPR Korea	167	190	196	197
Hong Kong, China	5 224	6 101	6 463	6 531
Macao, China	13 197	15 641	16 776	16 934
Mongolia	1	2	2	2
Republic of Korea	432	471	482	484
South-East Asia				
Brunei Darussalam	45	58	65	66
Cambodia	54	71	77	78
Indonesia	96	111	119	120
Lao PDR	17	22	24	24
Malaysia	55	71	78	79
Myanmar	59	68	71	72
Philippines	204	254	282	288
Singapore	4 436	5 908	6 191	6 269
Thailand	106	118	123	124
Timor-Leste	50	55	72	75
Viet Nam	201	240	258	262
South and South-West Asia				
Afghanistan	19	32	38	40
Bangladesh	785	968	1 064	1 083
Bhutan	12	12	14	14
India	262	318	345	350
Iran (Islamic Rep. of)	34	40	42	43
Maldives	719	910	984	1 001
Nepal	130	166	184	188
Pakistan	142	181	199	202
Sri Lanka	261	285	291	293
Turkey	73	87	93	94
North and Central Asia				
Armenia	119	103	101	101
Azerbaijan	83	94	96	97
Georgia	78	68	64	64
Kazakhstan	6	5	6	6
Kyrgyzstan	22	25	26	26
Russian Federation	9	9	8	8
Tajikistan	37	43	46	47
Turkmenistan	8	9	10	10
Uzbekistan	46	55	59	60
Pacific				
American Samoa	236	285	320	327
Cook Islands	74	67	58	57
Fiji	40	44	45	46
French Polynesia	49	59	64	65
Guam	243	282	306	311
Kiribati	98	115	126	128
Marshall Islands	263	290	315	322
Micronesia (F.S.)	138	153	157	158
Nauru	458	502	506	507
New Caledonia	9	12	13	13
Niue	9	7	6	6
Northern Mariana Is.	92	145	168	172
Palau	32	42	44	44
Papua New Guinea	9	12	13	13
Samoa	57	62	65	65
Solomon Islands	11	14	16	17
Tonga	126	131	132	133
Tuvalu	314	340	348	350
Vanuatu	12	16	18	18
ESCAP Developed Economies				
Australia	2	2	3	3
Japan	327	336	338	339
New Zealand	13	14	15	15
ESCAP	61	70	74	75
LLDC	15	18	19	20
LDC	94	117	129	131
SIDS	18	23	26	26
ASEAN	98	116	124	126
SAARC	221	271	295	300
Central Asia	16	17	18	18
Low-income	137	168	183	185
Middle-income	50	55	58	58
High-income	23	25	25	25
Africa	21	27	31	31
Latin America & Carib.	22	26	27	28
North America	14	16	17	17
Europe	97	98	99	100
Other Asia-Pacific	21	28	32	33
World	40	46	49	49

3. International migration

In 2006, more people left Asia and the Pacific than entered it.

This region has a crude net migration rate similar to that of Africa, but considerably lower than that of the Latin American and Caribbean region, which has the highest net outflow rate among all the regions of the world. North America, in contrast, is the region with the highest crude net migration rate, at 4.7 per 1,000 population, followed by Europe, at 2.4 per 1,000 population. These two regions have the highest net inflow rates among all the regions of the world.

Among country groupings within Asia and the Pacific, the Central Asian countries had the highest outflow rate of people, with an average of 8 migrants per 1,000 population between 1995 and 2000, and an average of 4 migrants per 1,000 between 2000 and 2005. The relative outflows are much higher in several Pacific island States for which no aggregate figure is given in table 3.1.

The Federated States of Micronesia has the highest negative net migration rate in Asia and the Pacific, with an average outflow of 18 people per 1,000 population. Micronesians have mainly moved to Guam, the Northern Mariana Islands and, to a lesser extent, Palau.

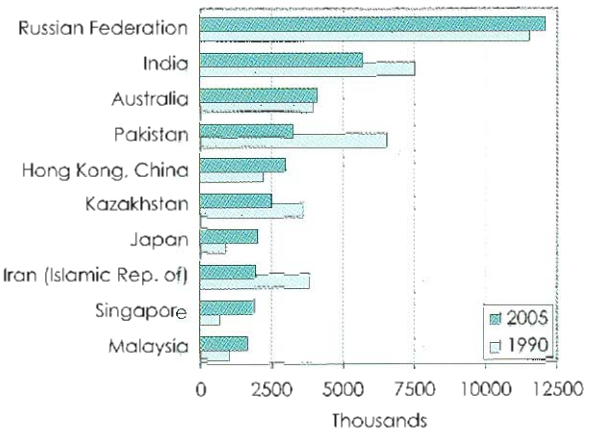
Timor-Leste now has the highest net inflow rate of migrants in Asia and the Pacific, with 21 migrants per 1,000 population, in stark contrast to the negative crude net migration rate of 41 migrants per 1,000 population registered during the years of conflict. Booming cities Singapore and Macao, China, are also among the areas with the highest crude migration rates in this region, receiving around 10 migrants per 1,000 population annually.

It is noteworthy that all countries with negative net migration have been experiencing this phenomenon over the last 15 years. The economic and social implications of this are significant, as a decline in population through constant outflows of migrants can only be compensated for by high fertility rates, which most of these countries do not have.

Half of the bottom 15 countries with negative net migration rates are in Central Asia. Emigration from this region is directed mainly towards the Russian Federation and, to a lesser extent, Europe. According to some estimates, there are about 700,000 Armenian migrants in the Russian Federation, the same number from Kyrgyzstan, and 600,000 from Tajikistan. Azerbaijan, with 1.5 million, has the highest number of migrants in the Russian Federation (University of California Davis, 2006).

These figures are reflected in the stock of migrants in Asia and the Pacific. The Russian Federation has the highest number of migrants in the region, with over 12 million foreign citizens; slightly above the number it had in 1990. India has the second largest stock of migrants in the region, but almost 2 million less than in 1990. The migrant stocks of Pakistan, at over 3 million, and the Islamic Republic of Iran, at close to 2 million, have fallen by half during the last 15 years.

Figure 3.1 Stock of foreign migrants in selected Asian and Pacific countries/areas, 1990 and 2005



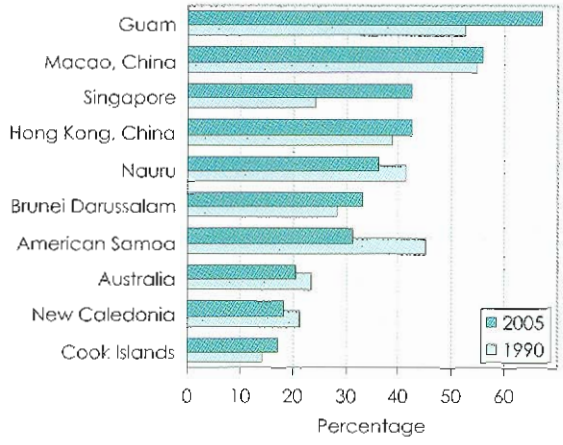
While the migrant stocks number in millions, it is interesting that they represent only 1.2 per cent of the total population of Asia and the Pacific, compared with 1.6 per cent in 1990.

In high-income countries, the share of international migrants in the total population has increased during the last decade and a half. In 2005, migrants represented 6 per cent of the population in high-income countries, far above the 1 per cent in middle-income countries, as shown in table 3.1.

The share of migrants in the total population of landlocked developing countries declined substantially, from 9.3 per cent in 1990 to 5.6 per cent in 2005. The share of migrants in Central Asian countries decreased at a similar rate, standing currently at 7 per cent, compared with 12 per cent in 1990.

The highest shares of migrants in Asia and the Pacific are found in the Pacific islands. Two thirds of the population of Guam is of foreign origin, consisting mainly of migrants from the Federated States of Micronesia and the Philippines. For most of the countries/areas in the Pacific, however, the

Figure 3.2 Foreign population as a share of the total population in selected Asian and Pacific countries/areas, 1990 and 2005



share of immigrants has decreased during the last decade and a half.

Singapore, Macao, China, and Hong Kong, China, also have high shares of immigrant populations. In Singapore and Hong Kong, China, over 40 per cent of the total population is of foreign origin; in Macao, China, it is more than half. Among the developed countries of Asia and the Pacific, Australia and New Zealand have the highest shares of immigrants, with over 20 and 16 per cent of the total population, respectively.

Stock of foreign population (thousands): Estimated number of international immigrants, male and female, in the middle of the indicated year. Generally represents the number of persons born in a country other than where they live. *Aggregates:* Sum of individual country values. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Stock of foreign population as a share of total population (percentage): The number of international immigrants divided by the total population. Expressed as a percentage in the middle of the indicated year. Where data on the place of birth was unavailable, the number of non-citizens was used as a proxy for the number of international immigrants. In either case, the migrant stock includes refugees, some of whom may not be foreign-born. *Aggregates:* Averages are calculated using the total population as weight. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Net migration rate (per 1,000 population): The number of international immigrants minus the number of emigrants over a period, divided by the average population of the receiving country over that period. Expressed as the net number of migrants per 1,000 population. *Aggregates:* Averages are calculated using total population as weight. *Source: World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

3.1 International migration

	Stock of foreign population (Thousands)				Stock of foreign population as share in total population (Percentage)				Net migration rate (Per 1,000 population)		
	1990	1995	2000	2005	1990	1995	2000	2005	90-95	95-00	00-05
East and North-East Asia											
China	380	441	513	596	0.03	0.04	0.04	0.05	-0.2	-0.2	-0.3
DPR Korea	34	35	36	37	0.17	0.17	0.17	0.16			
Hong Kong, China	2 218	2 432	2 701	2 999	38.89	39.31	40.69	42.59	10.1	9.3	8.7
Macao, China	204	224	240	257	54.86	54.37	54.18	55.91	7.8	7.1	10.9
Mongolia	7	7	8	9	0.30	0.31	0.33	0.34	-5.2	-7.4	-4.0
Republic of Korea	572	584	568	551	1.33	1.30	1.21	1.15	-0.5	-0.3	-0.3
South-East Asia											
Brunei Darussalam	73	87	104	124	28.48	29.60	31.23	33.22	2.6	2.2	2.0
Cambodia	38	116	237	304	0.39	1.02	1.86	2.16	2.8	1.3	0.2
Indonesia	466	219	330	160	0.26	0.11	0.16	0.07	-0.8	-0.9	-0.9
Lao PDR	23	23	24	25	0.55	0.50	0.46	0.42	-1.4	-3.5	-4.2
Malaysia	1 014	1 135	1 392	1 639	5.68	5.58	6.05	6.47	3.0	4.5	1.2
Myanmar	101	112	115	117	0.25	0.25	0.24	0.23	-0.6	0.0	-0.4
Philippines	164	214	322	374	0.27	0.31	0.43	0.45	-2.8	-2.5	-2.2
Singapore	727	992	1 352	1 843	24.11	28.51	33.65	42.61	15.4	19.6	9.6
Thailand	391	568	844	1 050	0.72	0.97	1.37	1.64	0.6	1.7	0.7
Timor-Leste	5	6	5	6	0.72	0.68	0.73	0.65		-40.8	21.2
Viet Nam	28	27	28	21	0.04	0.04	0.04	0.03	-0.7	-0.5	-0.5
South and South-West Asia											
Afghanistan									42.9	-4.1	9.7
Bangladesh	882	1 006	988	1 032	0.85	0.86	0.77	0.73	-0.4	-0.5	-0.7
Bhutan	8	9	9	10	0.51	0.50	0.47	0.45	-38.3	0.1	11.7
India	7 493	6 951	6 271	5 700	0.88	0.74	0.61	0.52	-0.2	-0.3	-0.2
Iran (Islamic Rep. of)	3 809	2 478	2 321	1 959	6.72	3.98	3.50	2.82	-5.3	-1.7	-3.7
Maldives	3	3	3	3	1.23	1.15	1.08	1.02			
Nepal	413	625	718	819	2.16	2.88	2.94	3.02	-1.0	-0.9	-0.8
Pakistan	6 556	4 077	4 243	3 254	5.87	3.23	2.97	2.06	-4.3	-0.1	-1.6
Sri Lanka	461	428	397	368	2.59	2.27	2.00	1.78	-2.9	-4.3	-4.7
Turkey	1 150	1 210	1 259	1 328	2.01	1.93	1.85	1.81	0.4	0.3	-0.1
North and Central Asia											
Armenia	659	455	314	235	18.58	14.09	10.19	7.80	-29.5	-14.3	-6.6
Azerbaijan	361	292	160	182	5.00	3.75	1.97	2.16	-3.1	-3.2	-2.4
Georgia	338	250	219	191	6.20	4.97	4.63	4.27	-21.3	-14.4	-10.8
Kazakhstan	3 619	3 295	2 871	2 502	21.93	20.77	19.10	16.88	-18.6	-17.1	-2.7
Kyrgyzstan	623	482	372	288	14.18	10.50	7.52	5.47	-12.2	-1.1	-3.0
Russian Federation	11 525	11 707	11 892	12 080	7.77	7.90	8.11	8.44	3.0	3.0	1.3
Tajikistan	426	305	330	306	8.03	5.28	5.36	4.71	-11.3	-11.6	-10.8
Turkmenistan	307	260	241	224	8.36	6.19	5.35	4.63	2.5	-2.3	-0.4
Uzbekistan	1 653	1 474	1 367	1 268	8.06	6.43	5.53	4.77	-3.1	-3.4	-2.3
Pacific											
American Samoa	21	21	21	20	44.97	39.45	35.73	31.42			
Cook Islands	3	3	3	3	14.09	13.71	15.34	17.00			
Fiji	14	15	16	17	1.89	1.92	1.96	2.03	-9.3	-10.7	-10.3
French Polynesia	26	28	31	34	13.22	13.06	13.03	13.08	-0.5	1.4	1.5
Guam	70	82	97	113	52.43	56.59	62.20	66.85	-4.6	-6.4	1.0
Kiribati	2	2	2	3	3.03	2.86	2.71	2.59			
Marshall Islands											
Micronesia (F.S.)	3	3	3	4	3.18	3.16	3.24	3.22	-4.4	-25.4	-17.9
Nauru	4	4	5	5	41.49	39.33	37.41	36.09			
New Caledonia	37	39	41	43	21.40	20.03	18.97	18.22	5.8	5.5	4.3
Niue	0	0	0	0	11.44	10.01	8.70	7.61			
Northern Mariana Is.	5	5	5	5	10.95	8.72	7.33	6.48			
Palau	2	2	3	3	12.66	12.91	13.53	15.22			
Papua New Guinea	33	32	26	25	0.80	0.68	0.50	0.43			
Samoa	6	7	8	9	3.64	4.05	4.46	4.97	-15.8	-16.2	-16.6
Solomon Islands	4	4	4	3	1.28	1.04	0.84	0.69			
Tonga	3	2	2	1	3.19	2.26	1.59	1.14	-18.0	-19.5	-16.1
Tuvalu	0	0	0	0	3.23	3.17	3.12	3.12			
Vanuatu	2	2	1	1	1.44	0.98	0.69	0.49	-1.1	-7.9	
ESCAP Developed Economies											
Australia	3 984	4 068	4 072	4 097	23.61	22.67	21.35	20.33	5.9	5.0	6.0
Japan	877	1 261	1 620	2 048	0.71	1.00	1.28	1.60	0.4	0.4	0.4
New Zealand	529	732	708	642	15.52	20.00	18.54	15.94	5.3	2.1	5.1
ESCAP	52 357	48 841	49 461	48 940	1.6	1.4	1.3	1.2	-0.3	-0.3	-0.3
LLDC	8 098	7 226	6 415	5 867	9.3	7.7	6.5	5.5	-0.2	-5.5	-0.4
LDC	1 488	1 915	2 114	2 332	0.8	0.9	0.9	0.9	2.6	-0.8	0.3
SIDS	970	1 252	1 627	2 143	9.4	10.6	12.4	14.7			
ASEAN	3 026	3 494	4 747	5 658	0.7	0.7	0.9	1.0	-0.5	-0.2	-0.6
SAARC	15 816	13 098	12 628	11 186	1.4	1.0	0.9	0.7	-0.2	-0.4	-0.3
Central Asia	7 985	6 812	5 875	5 196	12.0	9.8	8.2	7.0	-10.5	-8.1	-3.8
Low-income	18 319	15 282	14 771	13 214	1.4	1.1	0.9	0.8	-0.3	-0.5	-0.4
Middle-income	24 713	23 023	23 149	22 965	1.4	1.2	1.2	1.1	-0.5	-0.3	-0.5
High-income	9 318	10 529	11 533	12 752	4.7	5.2	5.5	6.0	1.3	1.4	1.3
Africa									-0.5	-0.4	-0.5
Latin America & Carib.									-1.7	-1.5	-2.5
North America									4.0	4.5	4.7
Europe									1.3	0.8	2.4
Other Asia-Pacific									2.9	2.1	2.0
World	154 945	165 080	176 736	190 634							

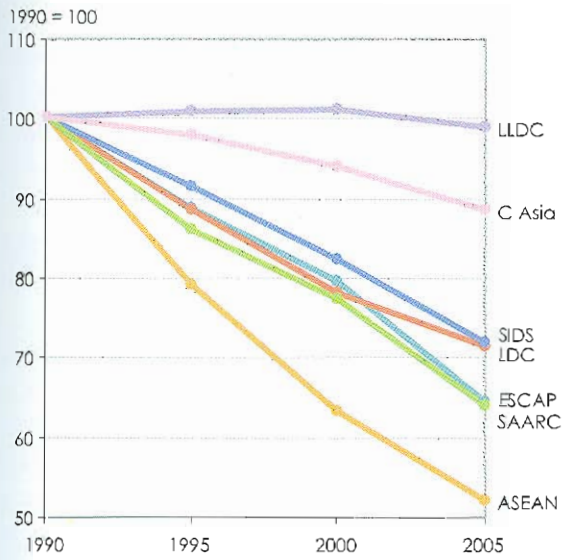
4. Child health

In 2005, 10 million children under the age of five died across the world; over 4 million of these deaths occurred in Asia and the Pacific.

Although the under-five mortality rate (58 per 1,000 live births) is considerably lower than in Africa (153 per 1,000 live births), the absolute number of children dying before their fifth birthday in Asia and the Pacific is comparable to that of Africa. Among all developing regions, the Latin American and Caribbean region has the lowest child mortality rate.

From 1990 to 2005, the Asian and the Pacific region managed to reduce the under-five mortality rate considerably, from 90 children per 1,000 live births to 58. During the same period, Latin America and the Caribbean experienced an even faster reduction, but in Africa there was a more modest reduction, from 172 to 153.

Figure 4.1 Index of change in the child mortality rates for selected groups of Asian and Pacific countries/areas, 1990-2005



Within the ESCAP region, under-five mortality was reduced most rapidly in the ASEAN region, where the rate dropped from 77 child deaths per 1,000 live births to 40, a reduction of nearly half. However, despite the overall progress in ASEAN countries, Cambodia, the Lao People's Democratic Republic and Myanmar are still among the 20 countries with the highest under-five mortality rates in the Asian and Pacific region.

The rate of under-five mortality in the SAARC region has also fallen, albeit at a slower pace. From 129 deaths per 1,000 live births in 1990, it came down to 82 in 2005, but, as children constitute a large population group in the SAARC countries, this means that, every year, more than 3 million children still die before reaching their fifth birthday.

Among the landlocked developing countries of the Asian and Pacific region, there has been only a marginal reduction in the under-five mortality rate, which currently stands at 134 deaths per 1,000 live births. Armenia is the only country in this group that is not among the 20 countries with the highest under-five mortality rates in the Asian and Pacific region, but the most worrying case is that of Afghanistan, where the under-five mortality rate has barely moved. With 257 child deaths per 1,000 live births, Afghanistan has the fourth highest under-five mortality rate in the world, after Sierra Leone, the Niger and Angola.

According to WHO, most child deaths occur in the first year of life. Of the 58 under-five deaths per 1,000 live births in Asia and the Pacific that occurred in 2005, 44 were among infants (see figure 4.3). In the Central Asian subregion, the under-five mortality rate is 72 deaths per 1,000 live births, and 60 of those — a staggering 83 per cent — are infant deaths.

As in the case of under-five mortality, the South-East Asian subregion reduced infant mortality at the fastest pace within the Asian and Pacific region. The SAARC region, however, reduced infant mortality between 1990 and 2005 at a much faster pace than under-five mortality. Bangladesh and Nepal almost halved their infant mortality rates between 1990 and 2005. Bhutan and India also made significant progress during this period.

Overall, the Asian and Pacific region has reduced infant mortality at a faster pace than under-five mortality, and this may be related to two of the main interventions that, according to WHO, reduce child deaths: reducing malnutrition and increasing immunization coverage.

The main cause of infant and child mortality is malnourishment. According to some estimates from WHO, over 50 per cent of all under-five deaths are caused by malnutrition. The prevalence of moderately or severely underweight children is a direct indicator for monitoring nutritional status among children under 5 years of age.

Although there is insufficient data to calculate subregional estimates for Asia and the Pacific, UNICEF estimates suggest that South Asia has the highest percentage of underweight children in the world. According to WHO, half of the world's

Figure 4.2 Under-five mortality rates in Asia and the Pacific, 1990 and 2005

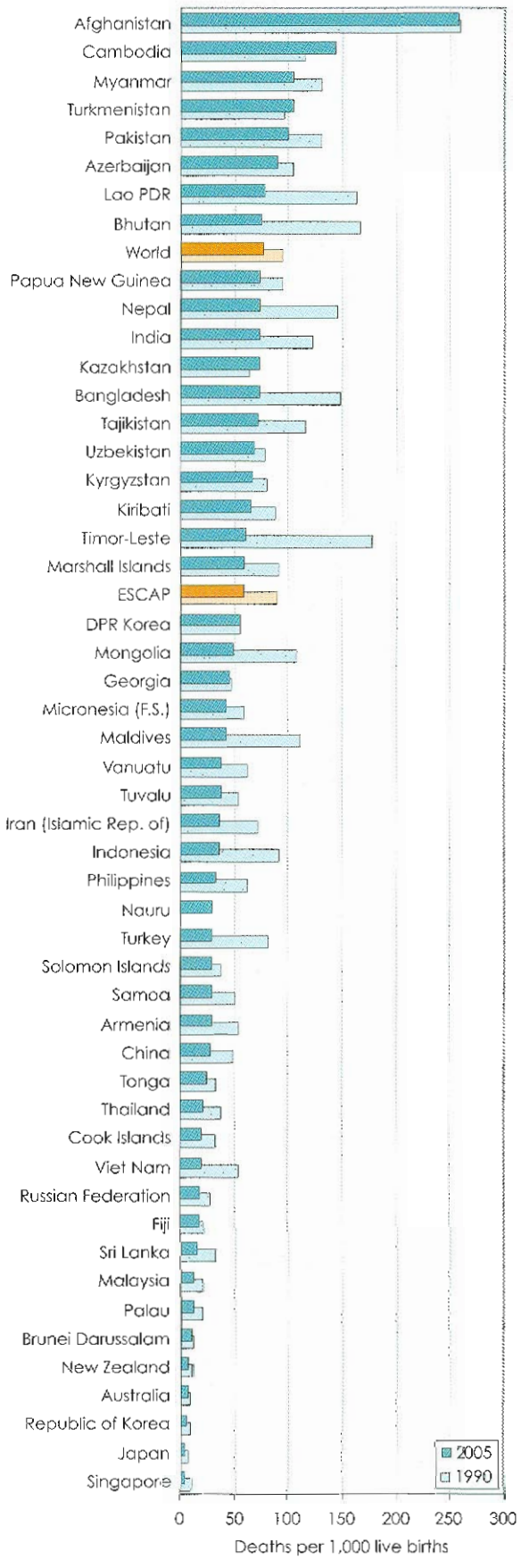
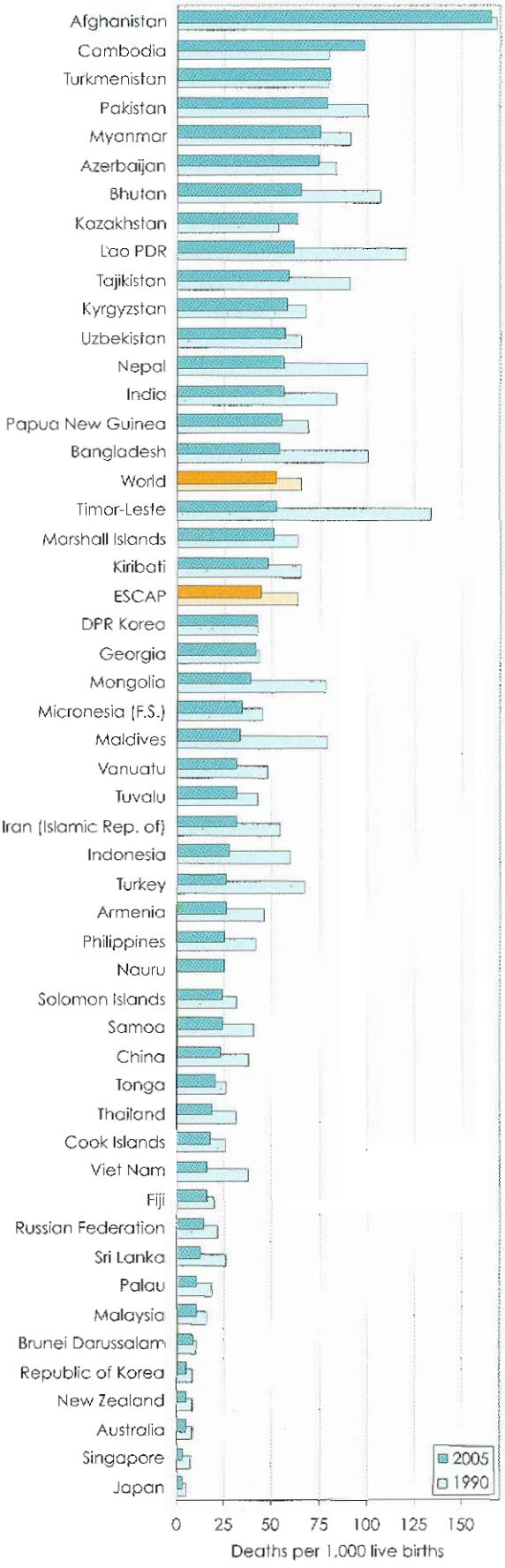


Figure 4.3 Infant mortality rates in Asia and the Pacific, 1990 and 2005



150 million malnourished children live in this subregion.

The prevalence of children underweight is close to half in Bangladesh, India and Nepal. Afghanistan and Pakistan, at close to 40 per cent, also have high rates of underweight children (see table 4.1).

As the available data is insufficient to establish trends, there is no clear sign of progress on this indicator in most countries. Among the few countries for which it is possible to track progress is Bangladesh, which has reduced the proportion of underweight children from nearly two thirds to less than one half.

One of the better-performing countries, Malaysia reduced the proportion of underweight children from 23 per cent in 1993 to 11 per cent in 2003. China and Turkey also more than halved the number of underweight children during a similar period, from 19 to 8 per cent and from 10 to 4 per cent, respectively.

ASEAN countries such as the Philippines and Viet Nam, despite having made progress in reducing poverty, have yet to experience equal progress in reducing child malnourishment. In the Lao People's Democratic Republic and Cambodia, over 40 per cent of all children under 5 years of age are underweight. The prevalence of underweight children in Cambodia increased from 40 per cent to 45 per cent between 1994 and 2000.

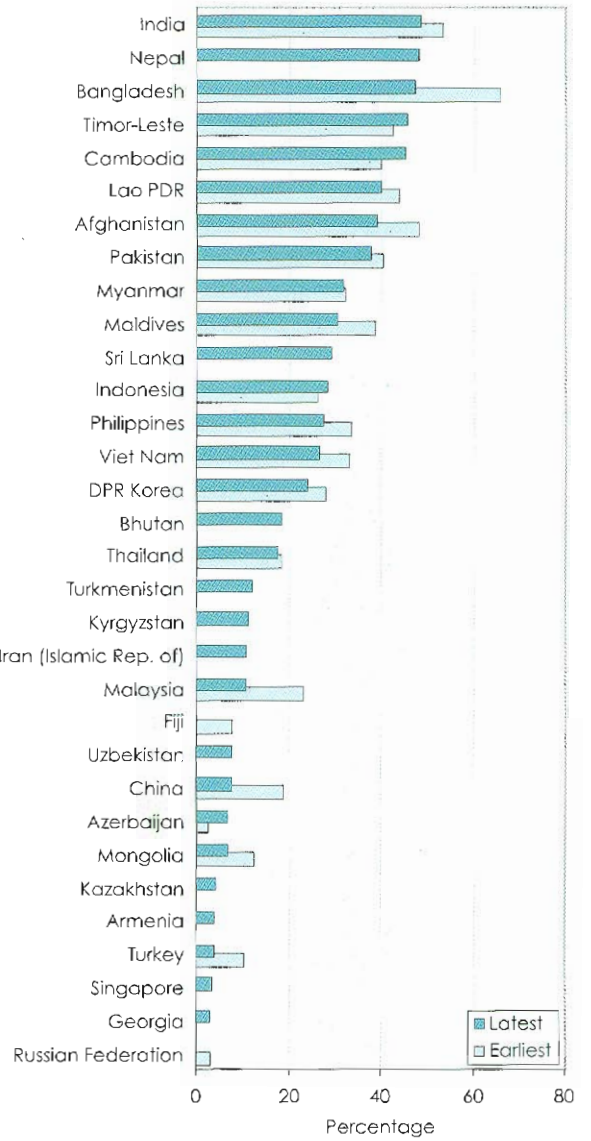
Measles, an easily preventable disease, is still responsible for 4 per cent of all infant and child deaths in the world. Although three quarters of all one-year-old children in the Asian and Pacific region had been immunized by 2005, wide disparities remain among subregions.

Central Asia has a measles immunization rate of 97 per cent, which is even higher than the 90 per cent of North America and Europe. In ASEAN countries, four out of five one-year-olds are vaccinated, but immunization rates are as low as 66 per cent in small island developing States and 64 per cent in SAARC countries, which is lower than the 66 per cent achieved in Africa.

Income differentials are important determinants of immunization. High-income countries in the region have an immunization rate close to 100 per cent, while middle- and low-income countries manage to achieve 85 and 66 per cent, respectively.

Out of the 10 countries with the lowest immunization rates in the Asian and Pacific region, 7 are small island developing States. This poor performance is partly due to their geographical circumstances, but there are other countries not in

Figure 4.4 Prevalence of moderately or severely underweight children in Asia and the Pacific, 1990 and 2004



the category of small island developing States that also perform poorly in this area. At just 41 per cent, the Lao People's Democratic Republic has the lowest measles immunization rate in Asia and the Pacific; only a few African countries, such as Chad and Somalia, are further behind. Afghanistan and India round out the list of Asian and Pacific countries with the 10 lowest immunization rates.

Disparities in immunization rates among different income groups within countries can be substantial. While Cambodia, for instance, has an immunization rate close to the ASEAN average, 80 per cent of children living in households in the upper income quintile are immunized, as opposed to only half of those living in households in the lowest income quintile.

This is also the case for SAARC countries. In Bangladesh and Nepal, for example, over 80 per cent of children living in households belonging to

the upper income quintile are immunized, compared with less than 61 per cent of those living in low-income households.

Only Central Asian countries, such as Armenia and Turkmenistan, have no significant disparities in immunization rates between high and low income quintiles.

Figure 4.5 The 10 Asian and Pacific countries with the lowest measles immunization rates for one-year-old children, 1990 and 2005

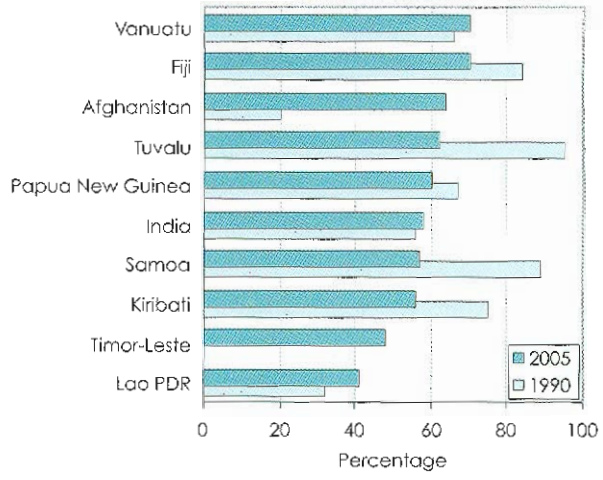
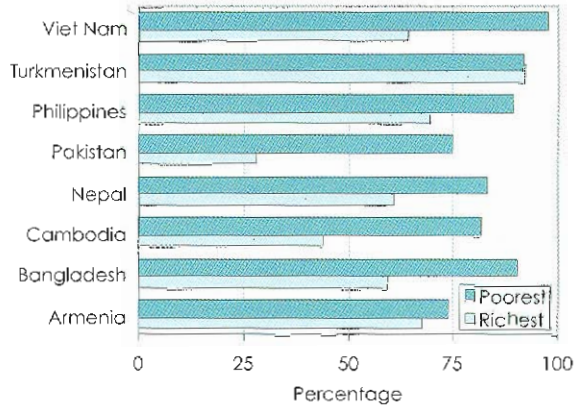


Figure 4.6 Measles immunization rates for one-year-old children in the richest and poorest income quintiles of selected Asian and Pacific countries/areas (latest year between 1991 and 2004)



Infant mortality rate (deaths per 1,000 live births): The probability of a child born in a specified year dying before reaching the age of one if subject to current age-specific mortality rates, expressed per 1,000 live births. *Aggregates:* Averages are calculated using total number of live births as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Under 5 mortality rate (deaths per 1,000 live births): The probability of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates, expressed per 1,000 live births. *Aggregates:* Averages are calculated using total number of live births as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Prevalence of underweight children (% of children under 5): The proportion of children aged 0-59 months who fall below by more than three standard deviations from the median weight for age of the NCHS/WHO standard reference population. In a normally distributed population only 0.13 per cent of children would be expected to be severely underweight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Proportion of one-year-old children immunized against measles (percentage): The proportion of one-year-old children who have received at least one dose of measles vaccine. *Aggregates:* Averages are calculated using the population of children aged one as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Proportion of one-year-old children immunized against measles, poorest quintile (percentage): The proportion of one-year-old children in the poorest wealth quintile who have received at least one dose of measles vaccine. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Proportion of one-year-old children immunized against measles, richest quintile (percentage): The proportion of one-year-old children in the richest wealth quintile who have received at least one dose of measles vaccine. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Children immunized against DPT3 (percentage): The percentage of one-year-olds who have received three doses of the combined diphtheria, pertussis and tetanus toxoid (DPT3) vaccine in a given year. *Aggregates:* Averages are calculated using the population of children aged one as weight. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

4.1 Child health

	Infant mortality rate				Under 5 mortality rate				Prevalence of underweight children			
	Deaths per 1,000 live births				Deaths per 1,000 live births				% of children under 5			
	1990	1995	2000	2005	1990	1995	2000	2005	Earliest		Latest	
East and North-East Asia												
China	38	37	33	23	49	46	41	27	19.1	(90)	7.8	(02)
DPR Korea	42	42	42	42	55	55	55	55	27.9	(00)	23.9	(04)
Hong Kong, China												
Macao, China												
Mongolia	78	64	50	39	108	87	65	49	12.3	(92)	6.7	(04)
Republic of Korea	8	6	5	5	9	6	5	5				
South-East Asia												
Brunei Darussalam	10	8	8	8	11	9	9	9				
Cambodia	80	88	95	98	115	120	135	143	39.8	(94)	45.2	(00)
Indonesia	60	48	36	28	91	66	48	36	26.4	(99)	28.2	(03)
Lao PDR	120	99	77	62	163	131	101	79	44.0	(93)	40.0	(00)
Malaysia	16	13	11	10	22	17	14	12	23.3	(93)	10.6	(03)
Myanmar	91	83	78	75	130	117	110	105	32.4	(90)	31.8	(03)
Philippines	41	35	30	25	62	49	40	33	33.5	(90)	27.6	(03)
Singapore	7	4	3	3	9	5	4	3			3.4	(00)
Thailand	31	23	19	18	37	26	22	21	18.6	(93)	17.6	(95)
Timor-Leste	133	118	85	52	177	154	107	61	42.6	(02)	45.8	(03)
Viet Nam	38	32	23	16	53	44	30	19	33.1	(00)	26.6	(04)
South and South-West Asia												
Afghanistan	168	165	165	165	260	257	257	257	48.0	(97)	39.3	(04)
Bangladesh	100	83	66	54	149	120	92	73	65.8	(90)	47.5	(04)
Bhutan	107	93	77	65	166	133	100	75			18.7	(99)
India	84	74	69	56	123	104	94	74	53.4	(93)	48.5	(99)
Iran (Islamic Rep. of)	54	43	36	31	72	55	44	36			10.9	(98)
Maldives	79	63	45	33	111	86	60	42	38.9	(94)	30.4	(01)
Nepal	100	84	69	56	145	120	95	74			48.3	(01)
Pakistan	100	93	85	79	130	118	108	99	40.4	(91)	37.8	(02)
Sri Lanka	26	21	16	12	32	25	19	14			29.4	(00)
Turkey	67	52	38	26	82	63	44	29	10.4	(93)	3.9	(03)
North and Central Asia												
Armenia	46	38	32	26	54	44	36	29			4.0	(05)
Azerbaijan	84	80	77	74	105	98	93	89	2.6	(00)	6.8	(01)
Georgia	43	41	41	41	47	45	45	45			3.1	(99)
Kazakhstan	53	57	63	63	63	67	73	73			4.2	(99)
Kyrgyzstan	68	63	60	58	80	74	70	67			11.0	(97)
Russian Federation	21	22	19	14	27	29	24	18			3.0	(95)
Tajikistan	91	90	75	59	115	114	93	71				
Turkmenistan	80	72	77	81	97	89	99	104			12.0	(00)
Uzbekistan	65	62	59	57	79	75	71	68			7.9	(02)
Pacific												
American Samoa												
Cook Islands	26	24	20	17	32	29	24	20				
Fiji	19	17	16	16	22	19	18	18			7.9	(93)
French Polynesia												
Guam												
Kiribati	65	57	52	48	88	77	70	65				
Marshall Islands	63	59	55	51	92	81	68	58				
Micronesia (F.S.)	45	41	37	34	58	52	47	42				
Nauru		25	25	25		30	30	30				
New Caledonia												
Niue												
Northern Mariana Is.												
Palau	18	15	13	10	21	17	14	11				
Papua New Guinea	69	64	60	55	94	87	80	74				
Samoa	40	33	28	24	50	41	34	29				
Solomon Islands	31	29	26	24	38	35	32	29				
Tonga	26	24	22	20	32	29	26	24				
Tuvalu	42	38	35	31	54	48	43	38				
Vanuatu	48	40	38	31	62	50	48	38				
ESCAP Developed Economies												
Australia	8	6	6	5	10	7	6	6				
Japan	5	4	3	3	6	6	5	4				
New Zealand	8	7	6	5	11	9	8	6				
ESCAP	64	59	53	44	90	80	71	58				
LLDC	98	97	97	94	136	137	138	134				
LDC	105	94	84	77	155	137	121	110				
SIDS	58	54	49	43	78	72	64	56				
ASEAN	53	44	36	30	77	61	49	40				
SAARC	89	79	73	62	129	111	99	82				
Central Asia	67	66	63	60	81	79	76	72				
Low-income	86	77	71	60	124	108	97	81				
Middle-income	41	38	32	24	55	48	41	29				
High-income	6	5	4	4	8	6	5	5				
Africa	104	102	96	92	172	168	159	153				
Latin America & Carib.	43	36	30	26	54	44	36	31				
North America	9	8	7	6	12	9	9	7				
Europe	12	9	7	6	14	11	9	7				
Other Asia-Pacific	47	58	55	53	62	73	70	66				
World	65			52	95			76				

4.2 Child immunization, one-year olds

	Immunized against measles								Immunized against DPT3			
	Total				Poorest quintile		Richest quintile					
	Percentage								Percentage			
	1990	1995	2000	2005	Earliest	Latest	Earliest	Latest	1990	1995	2000	2005
East and North-East Asia												
China	98	80	85	86					97	92	85	87
DPR Korea	98	67	78	96					98	96	80	79
Hong Kong, China												
Macao, China												
Mongolia	92	85	94	99					69	88	95	99
Republic of Korea	93	93	95	99					74	99	97	96
South-East Asia												
Brunei Darussalam	99	99	99	97					99		99	99
Cambodia	34	62	65	79		44 (00)		82 (00)	38	79	50	82
Indonesia	58	63	72	72					88	92	77	90
Lao PDR	32	68	42	41					18	54	53	49
Malaysia	70	82	88	90					90	90	95	90
Myanmar	90	82	84	72					69	84	82	73
Philippines	85	72	81	80		70 (03)		89 (03)	88	86	79	79
Singapore	84	97	96	96					85	95	95	95
Thailand	80	91	94	96					85	94	97	98
Timor-Leste				48								55
Viet Nam	88	95	97	95		64 (02)		98 (02)	88	93	96	95
South and South-West Asia												
Afghanistan	20	41	35	64					25		31	76
Bangladesh	65	79	76	81		60 (04)		91 (04)	69	91	68	78
Bhutan	93	85	76	93					84	87	92	95
India	56	72	56	58					99	91	94	90
Iran (Islamic Rep. of)	85	95	99	94					91	99	99	95
Maldives	96	96	99	97					94	94	97	98
Nepal	57	56	71	74		61 (01)		83 (01)	80	65	80	75
Pakistan	50	47	56	78	28 (91)		75 (91)		83	58	78	80
Sri Lanka	80	87	99	99					86	93	99	99
Turkey	78	65	86	91					74	66	80	90
North and Central Asia												
Armenia		96	92	94		68 (00)		74 (00)		98	93	90
Azerbaijan		97	99	98						96	99	93
Georgia		61	73	92						54	98	84
Kazakhstan		95	99	99						93	97	98
Kyrgyzstan		97	98	99						93	99	98
Russian Federation		85	97	99						78	96	98
Tajikistan		70	87	84					86	96	97	95
Turkmenistan		92	97	99		92 (00)		92 (00)		93	97	99
Uzbekistan		91	99	99						89		99
Pacific												
American Samoa												
Cook Islands	67	96	76	99					93	93	97	99
Fiji	84	94	85	70					82	97		75
French Polynesia												
Guam												
Kiribati	75	47	80	56					97	60	90	79
Marshall Islands	52	57	94	86					92	70	39	77
Micronesia (F.S.)	81	90	82	96					85	83	85	94
Nauru			8	80					74	56	44	80
New Caledonia												
Niue	99	34	99	99						99	99	85
Northern Mariana Is.												
Palau	98	99	83	98					99	99	96	98
Papua New Guinea	67	42	62	60					68	62	59	61
Samoa	89	96	93	57					90	94	99	63
Solomon Islands	70	68	87	72					77	69		78
Tonga	86	94	95	99					94	95	95	99
Tuvalu	95	94	81	62					99	87	75	93
Vanuatu	66	60	94	70					76	73	90	66
ESCAP Developed Economies												
Australia	86	87	91	94					95	86	90	92
Japan	73	93	96	99					87	74	85	
New Zealand	90	84	85	82					90	89	90	89
ESCAP	74	75	72	75					92	88	86	88
LLDC		70	71	80						82	68	84
LDC	62	71	70	76					64	85	65	76
SIDS	74	63	73	66					75	75	69	68
ASEAN	72	75	80	80					84	90	82	87
SAARC	56	69	58	64					92	87	88	87
Central Asia		89	96	97						91		97
Low-income	58	71	61	66					91	87	87	87
Middle-income	90	78	85	85					94	90	85	89
High-income	81	92	95	98					84	84	89	
Africa	60	58	58	66					59	58	58	73
Latin America & Carib.	76	87	89	92					71	85	90	93
North America	90	89	91	93						95	94	
Europe	81	87	90	91					89	93	93	94
Other Asia-Pacific	81	79	88	90					89	85		90
World	77			77					78			78

5. Maternal and reproductive health

Close to 50 per cent of the over half a million maternal deaths in the world occur in the Asian and Pacific region.

The maternal mortality ratio (MMR), at 330 per 100,000 live births, of the Asian and Pacific region is less than half that of Africa, but it is significantly higher than that of Latin America and the Caribbean. It also contrasts with the ratios in Europe and North America, 15 and 16, respectively.

Obtaining reliable figures on maternal mortality is hampered by the lack of effective data collection and registration systems. Furthermore, improvements in the measurement of maternal mortality over the last few decades impede any trend assessments.

High-income countries of Asia and the Pacific have an MMR even below that of Europe, while middle-income countries, with a ratio of 94 deaths per 100,000 live births, are below the region's average. Low-income countries, on the other hand, have a considerably higher rate, at 523 deaths per 100,000 live births.

Landlocked developing countries and least developed countries have the highest MMRs in Asia and the Pacific. While least developed countries have an MMR of 646 deaths per 100,000 live births, landlocked developing countries have a ratio of 818, which is quite close to the 834 deaths per 100,000 live births found in Africa.

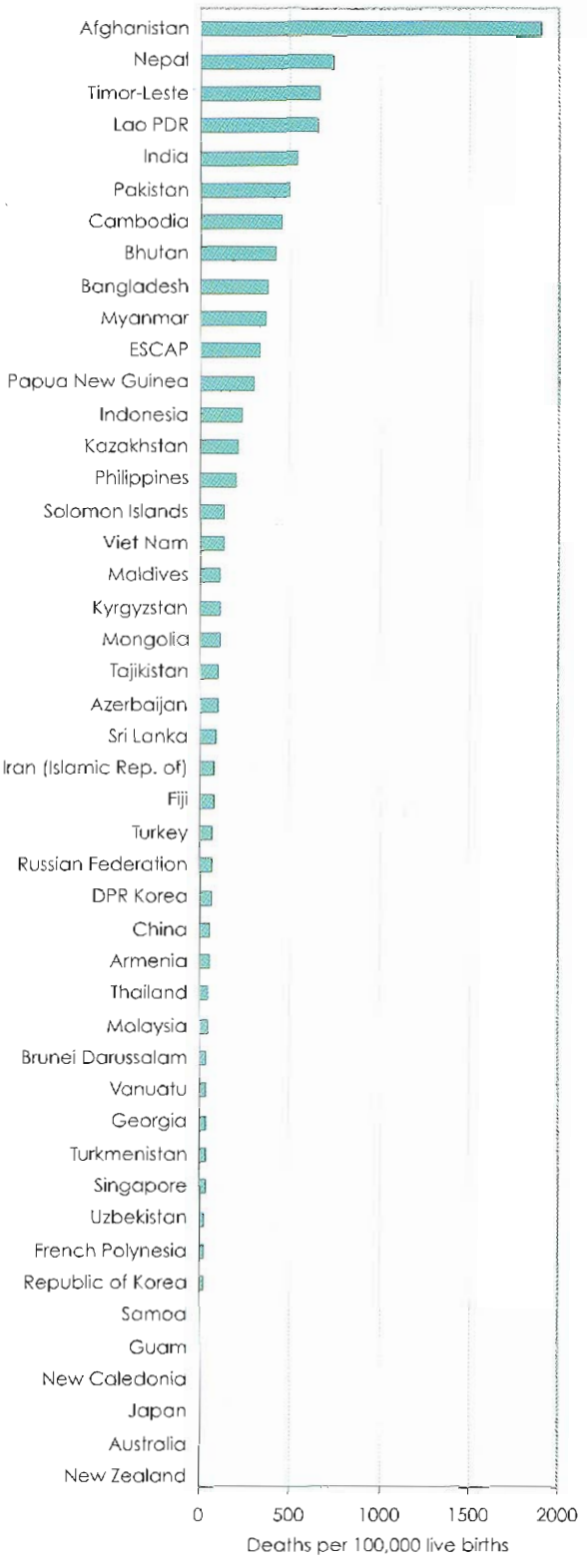
In North and Central Asia, only Georgia, Turkmenistan and Uzbekistan have achieved MMRs of 32 deaths per 100,000 live births or less. The MMRs in Kyrgyzstan and Tajikistan exceed 100 and in Kazakhstan it is 210 deaths per 100,000 live births.

In both absolute and relative terms, maternal mortality is highest in the SAARC region. With 226,077 deaths, this region accounted for more than two thirds of the maternal deaths in Asia and the Pacific in 2000. Nepal had the highest MMR, at 740, while India and Pakistan also had high levels, at 540 and 500, respectively. These rates are among the highest in the world.

The ASEAN region, in contrast, has an MMR of 208 deaths per 100,000 live births. Within South-East Asia, however, the MMR in Cambodia is 450 and in the Lao People's Democratic Republic it is 650.

MMRs also diverge widely at subnational levels, with sizeable disparities between economic groups and between urban and rural areas, as shown in table 5.1. The vast majority of maternal deaths can be prevented if appropriate reproductive health services are provided, but such services are often not available to the poorest income quintiles or in rural areas.

Figure 5.1 Maternal mortality ratios in Asia and the Pacific, 2000



Antenatal care and the attendance of deliveries by skilled birth personnel can help to detect health

problems early and refer patients to emergency obstetric care, thus considerably reducing maternal mortality. It is therefore not surprising that the subregions with the lowest birth attendance by skilled personnel are the ones with the highest MMRs.

In Asia and the Pacific, the countries with the lowest number of births attended by skilled health personnel are in South and South-West Asia. In Bangladesh, for example, only 13 per cent of births are attended by skilled health personnel, resulting in a high MMR of 380. In Nepal, where the MMR is 740, only one in five births is attended by skilled health personnel.

Other countries in the Asian and Pacific region also have low treatment rates for pregnant women. Cambodia, for example, has an antenatal care rate (one visit) of 44 per cent and an MMR of 450 deaths per 100,000 live births. In Afghanistan, with antenatal care coverage at 52 per cent, the MMR is 1,900 deaths per 100,000 live births.

Apart from these aspects, socio-cultural factors that inhibit women from accessing appropriate reproductive and sexual health services also play a major role in increasing maternal mortality. Many countries in the region have low rates of contraceptive use; this results in high levels of adolescent fertility, which is also a cause of high maternal mortality.

Afghanistan, for example, has the lowest contraceptive prevalence rate in Asia and the Pacific, at 5 per cent of women aged 15 to 49, resulting in the second highest adolescent fertility rate in the region, at 132 births per 1,000 women (see table 1.5 and figure 5.4). The Lao People's Democratic Republic, with a contraceptive rate below 32 per cent, also has a high adolescent fertility rate, at 88 births per 1,000 women.

Figure 5.2 Births attended by skilled health personnel in Asia and the Pacific, latest year from 2000-2005

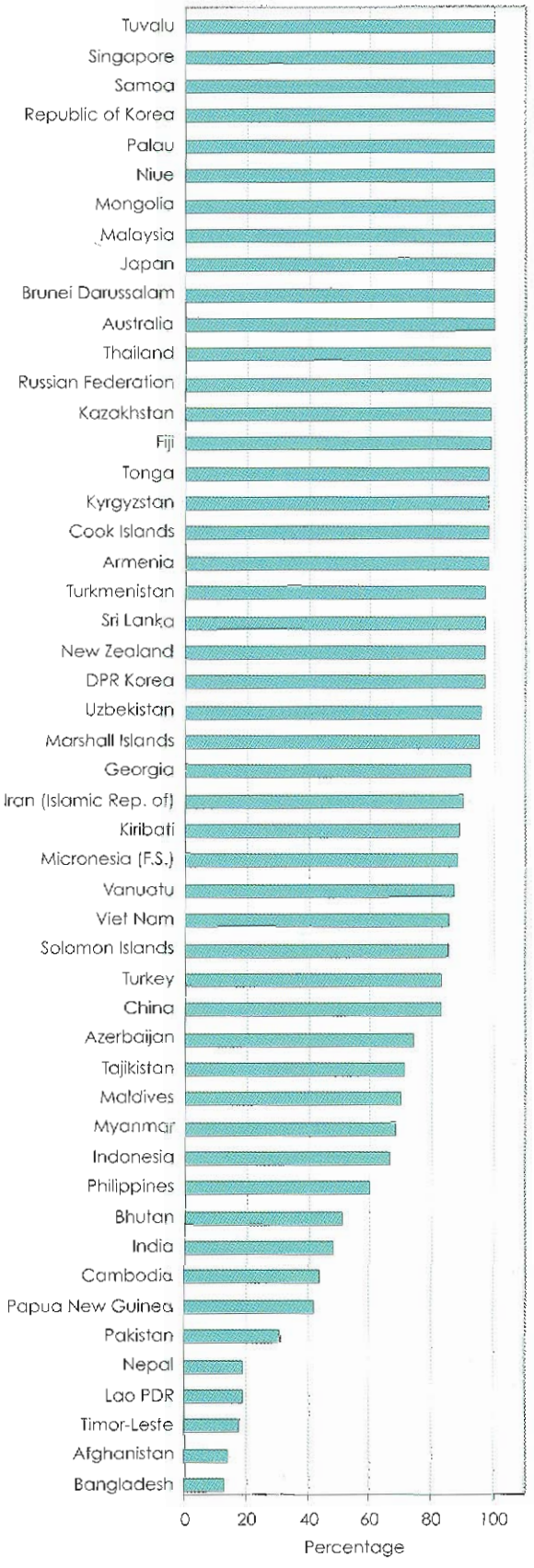


Figure 5.3 Contraceptive prevalence among women aged 15-49 in Asia and the Pacific, latest year from 1996-2004

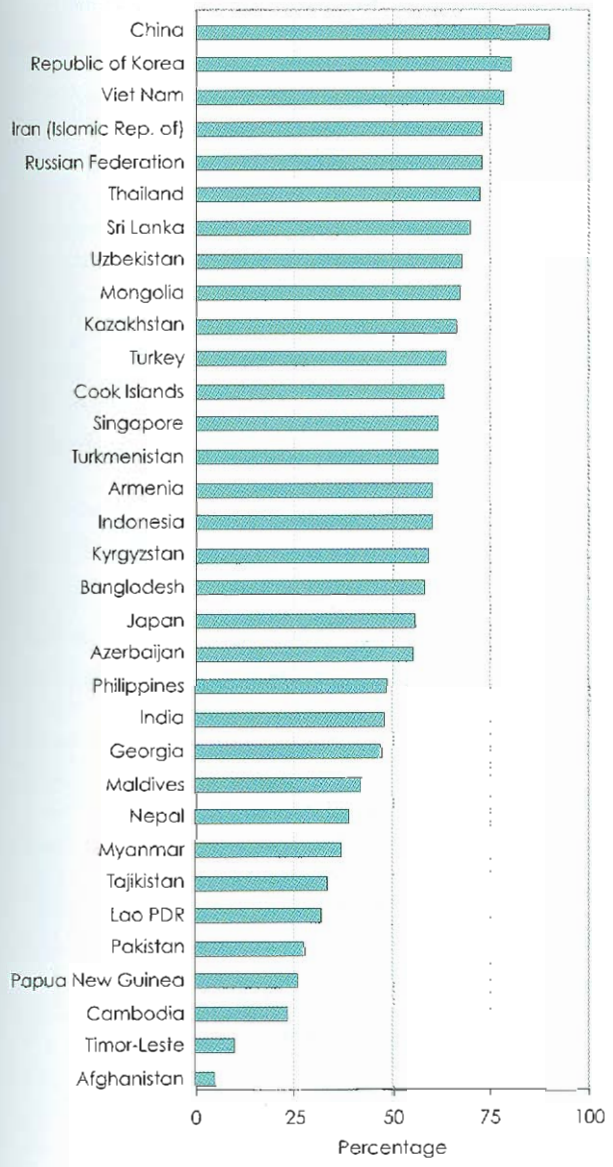
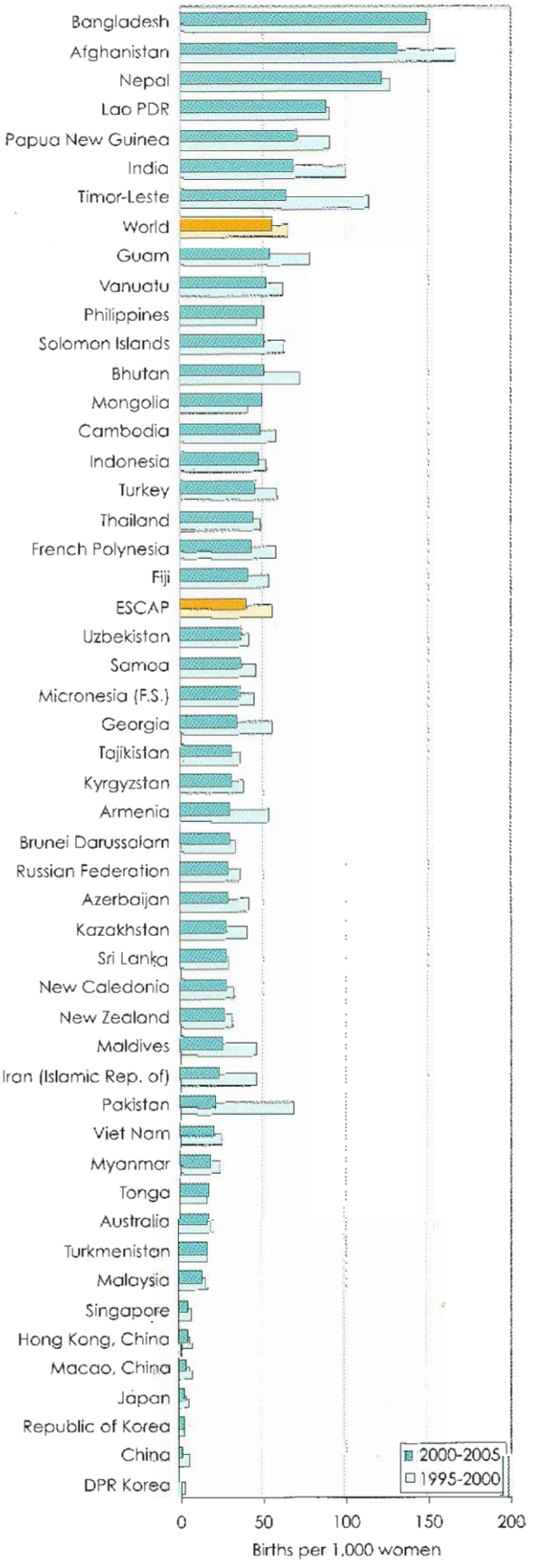


Figure 5.4 Fertility rate among adolescents aged 15-19 in Asia and the Pacific, 1995-2000 and 2000-2005



Maternal mortality (number): The number of deaths of women from pregnancy-related causes, while pregnant or within 42 days of termination of pregnancy, during a specified year. *Aggregates:* Sum of individual country values. *Source:* Calculated by ESCAP using data from United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Maternal mortality ratio (deaths per 100,000 live births): The number of deaths of women from pregnancy-related causes, while pregnant or within 42 days of termination of pregnancy, expressed per 100,000 live births, during a specified year. *Aggregates:* Averages are calculated using the total number of births as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Proportion of births attended by skilled health personnel (percentage): The proportion of births attended by health personnel trained in providing life saving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, labour and the post-partum period; to conduct deliveries on their own; and to care for new borns. Includes doctors, nurses and midwives, but not traditional birth attendants, even if they have received a short training course. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Proportion of births attended by skilled health personnel, poorest quintile (percentage): The proportion of births in the poorest wealth quintile attended by skilled health personnel (doctors, nurses or midwives). *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Proportion of births attended by skilled health personnel, richest quintile (percentage): The proportion of births of the richest wealth quintile attended by skilled health personnel (doctors, nurses or midwives). *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Proportion of births attended by skilled health personnel, rural (percentage): The percentage of live births attended by skilled health personnel (doctors, nurses or midwives) in rural areas. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Proportion of births attended by skilled health personnel, urban (percentage): The percentage of live births attended by skilled health personnel (doctors, nurses or midwives) in urban areas. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Contraceptive prevalence rate (percentage): The proportion of women of reproductive age (15-49 years) who are using, or whose partner is using, a contraceptive method at a given point in time. Contraceptive methods include clinic and supply (modern) methods and non-supply (traditional) methods. Clinic and supply methods include female and male sterilization, intra uterine devices (IUDs), hormonal methods (oral pills, injectables, and hormone-releasing implants, skin patches and vaginal rings), condoms and vaginal barrier methods (diaphragm, cervical cap and spermicidal foams, jellies, creams and sponges). Traditional methods include rhythm, withdrawal, abstinence and lactational amenorrhoea. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Pregnant women receiving antenatal care coverage, at least one visit (percentage): The proportion of women aged 15-49 who used antenatal care provided by skilled health personnel for reasons related to pregnancy at least once during pregnancy, expressed as a percentage of live births in a given time period. Antenatal care includes recording medical history, assessment of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, first-line management and referral if necessary. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Pregnant women receiving antenatal care coverage, at least four visits (percentage): The proportion of women aged 15-49 who utilized at least four times during pregnancy, antenatal care provided by skilled health personnel for reasons relating to pregnancy among all women who gave birth to a live child in a given time period. WHO recommends a minimum of four antenatal visits at specific times for all pregnant women. Antenatal care includes recording medical history, assessment of individual needs, advice and guidance on pregnancy and delivery, screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, first-line management and referral if necessary. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

5.1 Maternal mortality and antenatal care

	Maternal mortality		Proportion of births attended by skilled health personnel				
	Number	Deaths per 100,000 live births	Percentage				
	2000	2000	Total	Poorest quintile	Richest quintile	Rural	Urban
East and North-East Asia							
China	10 404	56	83 (04)				
DPR Korea	260	67	97 (04)				
Hong Kong, China							
Macao, China							
Mongolia	54	110	100 (04)				
Republic of Korea	111	20	100 (03)				
South-East Asia							
Brunei Darussalam	3	37	100 (04)				
Cambodia	1 675	450	44 (06)	15 (00)	81 (00)	28 (00)	57 (00)
Indonesia	10 383	230	66 (03)			55 (03)	79 (03)
Lao PDR	1 052	650	19 (01)				
Malaysia	225	41	100 (05)				
Myanmar	3 412	360	68 (03)				
Philippines	4 363	200	60 (03)	25 (03)	92 (03)	41 (03)	79 (03)
Singapore	14	30	100 (04)				
Thailand	430	44	99 (00)				
Timor-Leste	253	660	18 (02)				
Viet Nam	2 103	130	85 (02)	58 (02)	100 (02)	82 (02)	99 (02)
South and South-West Asia							
Afghanistan	20 457	1 900	14 (03)				
Bangladesh	15 160	380	13 (04)	3 (04)	40 (04)	9 (04)	30 (04)
Bhutan	60	420	51 (05)				
India	148 968	540	48 (06)	16 (99)	84 (99)	34 (99)	73 (99)
Iran (Islamic Rep. of)	922	76	90 (00)				
Maldives	7	110	70 (01)				
Nepal	5 823	740	19 (06)	4 (01)	45 (01)	10 (01)	51 (01)
Pakistan	21 524	500	31 (05)				
Sri Lanka	295	92	97 (00)				
Turkey	995	70	83 (03)	53 (98)	98 (98)	69 (98)	88 (98)
North and Central Asia							
Armenia	20	55	98 (05)	93 (00)	100 (00)	95 (00)	99 (00)
Azerbaijan	122	94	74 (01)				
Georgia	17	32	92 (05)				
Kazakhstan	505	210	99 (05)	99 (99)	99 (99)	100 (99)	98 (99)
Kyrgyzstan	120	110	98 (05)	96 (97)	100 (97)	98 (97)	99 (97)
Russian Federation	907	67	99 (05)				
Tajikistan	190	100	71 (00)				
Turkmenistan	33	31	97 (00)	97 (00)	98 (00)	97 (00)	98 (00)
Uzbekistan	143	24	96 (00)				
Pacific							
American Samoa							
Cook Islands			98 (01)				
Fiji	15	75	99 (02)				
French Polynesia	1	20					
Guam	0	12					
Kiribati			89 (02)				
Marshall Islands			95 (02)				
Micronesia (F.S.)			88 (01)				
Nauru							
New Caledonia	0	10					
Niue			100 (05)				
Northern Mariana Is.							
Palau			100 (02)				
Papua New Guinea	577	300	42 (04)				
Samoa	1	15	100 (04)				
Solomon Islands	19	130	85 (99)				
Tonga			98 (04)				
Tuvalu			100 (02)				
Vanuatu	2	32	87 (03)				
ESCAP Developed Economies							
Australia	20	8	100 (03)				
Japan	118	10	100 (04)				
New Zealand	4	7	97 (01)				
ESCAP	251 766	330					
LLDC	5 079	818					
LDC	81 426	646					
SIDS	82	264					
ASEAN	23 658	208					
SAARC	226 077	557					
Central Asia	1 073	79					
Low-income	139 870	523					
Middle-income	86 321	94					
High-income	57	13					
Africa	261 823	834					
Latin America & Carib.	22 357	192					
North America	20	16					
Europe	793	15					
Other Asia-Pacific	3 649	231					
World			63 (05)				

5.2 Reproductive health

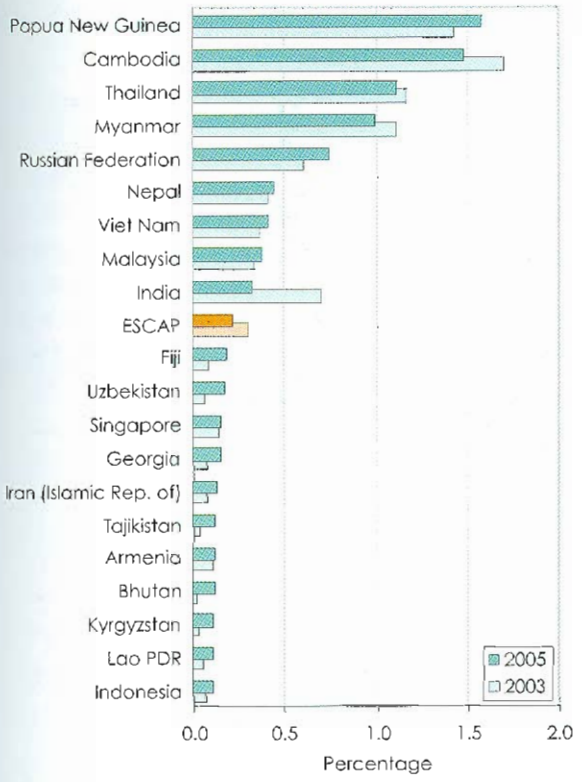
	Contraceptive prevalence rate		Pregnant women receiving antenatal care coverage	
	Percentage		Percentage	
	Earliest	Latest	One visit	Four visits
East and North-East Asia				
China		90 (04)		
DPR Korea	62 (92)		98 (00)	
Hong Kong, China	86 (92)			
Macao, China				
Mongolia		67 (00)		97 (01)
Republic of Korea		81 (97)		
South-East Asia				
Brunei Darussalam				100 (01)
Cambodia		24 (00)	44 (00)	9 (00)
Indonesia		60 (03)	97 (03)	81 (03)
Lao PDR		32 (00)	44 (01)	29 (01)
Malaysia	55 (94)			
Myanmar		37 (01)		76 (01)
Philippines		49 (03)	94 (03)	70 (03)
Singapore		62 (97)		
Thailand		72 (97)		86 (01)
Timor-Leste		10 (03)		
Viet Nam		79 (02)	70 (02)	29 (02)
South and South-West Asia				
Afghanistan		5 (00)	52 (03)	
Bangladesh		58 (04)	39 (00)	11 (00)
Bhutan	19 (94)			
India		48 (99)	65 (99)	30 (99)
Iran (Islamic Rep. of)		73 (97)		77 (01)
Maldives		42 (99)	98 (01)	81 (01)
Nepal		39 (01)	49 (01)	15 (01)
Pakistan		28 (01)		
Sri Lanka		70 (00)		98 (01)
Turkey		64 (98)	67 (98)	42 (98)
North and Central Asia				
Armenia		61 (00)	82 (00)	65 (00)
Azerbaijan		55 (01)	70 (01)	
Georgia		47 (05)	91 (99)	
Kazakhstan		66 (99)	82 (99)	71 (99)
Kyrgyzstan		60 (97)	88 (97)	81 (97)
Russian Federation		73 (99)	96 (99)	
Tajikistan		34 (00)	75 (00)	
Turkmenistan		62 (00)	87 (00)	83 (00)
Uzbekistan		68 (02)		
Pacific				
American Samoa				
Cook Islands		63 (96)		
Fiji				
French Polynesia				
Guam				
Kiribati				88 (01)
Marshall Islands				
Micronesia (F.S.)				
Nauru				
New Caledonia				
Niue				
Northern Mariana Is.				
Palau				
Papua New Guinea		26 (96)		78 (01)
Samoa				
Solomon Islands				
Tonga				
Tuvalu				
Vanuatu				
ESCAP Developed Economies				
Australia				
Japan		56 (00)		
New Zealand	75 (95)			
ESCAP				
LLDC				
LDC				
SIDS				
ASEAN				
SAARC				
Central Asia				
Low-income				
Middle-income				
High-income				
Africa				
Latin America & Carib.				
North America				
Europe				
Other Asia-Pacific				
World		60 (05)		

6. HIV/AIDS

HIV/AIDS prevalence in Asia and the Pacific, at 0.27 per cent, seems low compared with that of other regions, but it represents more than 6 million people living with HIV/AIDS.

HIV/AIDS prevalence in both Africa, at 5.05 per cent, and Latin America and the Caribbean, at 0.57 per cent, is higher than in Asia and the Pacific, although the total population living with HIV/AIDS in Latin America is less than a third that of the Asian and Pacific region.

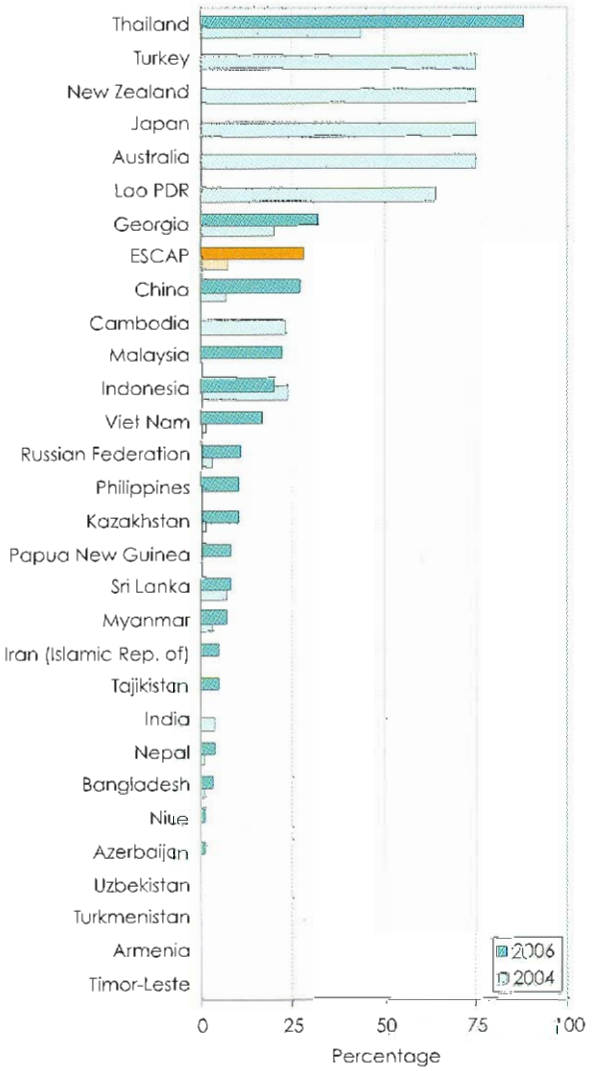
Figure 6.1 Asian and Pacific countries/areas with highest proportion of adults 15 years and above living with HIV/AIDS, 2003 and 2005



One in every four adults living with HIV/AIDS in Asia and the Pacific resides in the ASEAN region, and the SAARC region is home to 44.2 per cent. Together, these two regions account for nearly 70 per cent of the adults living with HIV/AIDS in the Asian and Pacific region. Close to three in five adults with HIV/AIDS — 3.5 million people — live in low-income countries, while 2.5 million live in middle-income countries.

High-income countries, such as Japan, Australia and New Zealand, not only have the lowest prevalence but also have ensured that at least three fourths of their populations living with HIV have access to antiretroviral treatment. This is in contrast to most low- and middle-income countries in the region, where relatively low proportions of people living with HIV have access to antiretroviral treatment. A notable exception in this regard is Thailand, where 88 per cent of those infected have such access.

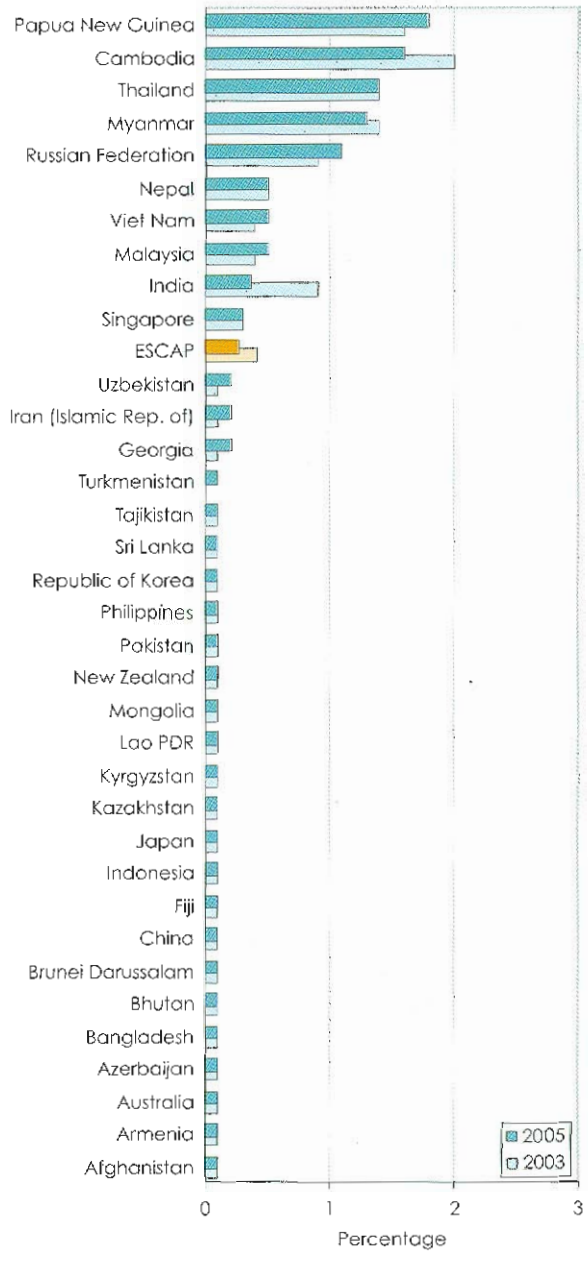
Figure 6.2 Access to antiretroviral drugs by population with advanced HIV in Asia and the Pacific, 2004 and 2006



The prevalence of adults living with HIV/AIDS is increasing in many North and Central Asian countries. This subregion is showing the fastest increase in the rates of infection, and almost a quarter of those infected are women. In the Russian Federation, the number of people estimated to be living with HIV/AIDS was 940,000 in 2005, and 22 per cent of these were women.

In Uzbekistan, an estimated 31,000 people were living with HIV/AIDS by 2005, and the number of reported HIV cases has almost tripled since 2003. People living with HIV/AIDS in Central Asia generally have low access to treatment,

Figure 6.3 HIV prevalence among people aged 15-49 in Asia and the Pacific, 2003 and 2005



but in Georgia, 32 per cent of the affected population had access to antiretroviral treatment in 2005, a sign that the country is doing comparatively well.

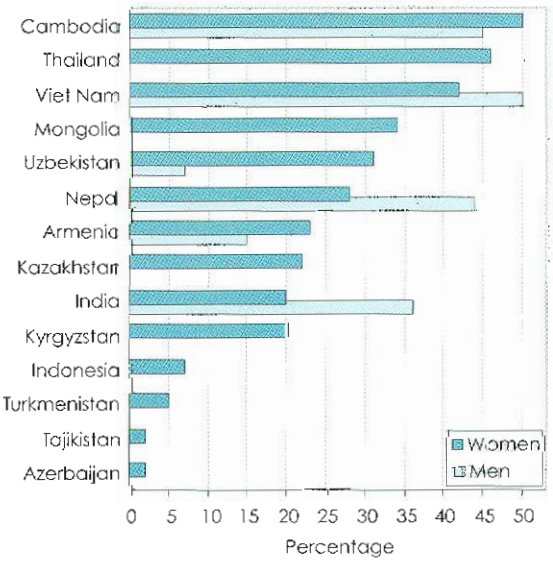
In South Asia, recent surveys indicate that, in 2005, approximately 2.5 million people in India were living with HIV/AIDS. Pakistan and Nepal are also among the countries with the highest numbers of people living with HIV/AIDS, at 84,000 and 74,000, respectively. Access to antiretroviral therapy in this subregion is among the lowest in the world.

In South-East Asia, Thailand had an estimated 560,000 adults living with HIV/AIDS at the end of 2005. While the number of new HIV infections continued to drop, women still account for almost 40 per cent of all infections. In Cambodia, the epidemic appears to be stabilizing, but in Viet Nam, the number of people living with HIV/AIDS shows an increasing trend, reaching an estimated 250,000 in 2005. In Indonesia, some 170,000 people were estimated to be living with HIV/AIDS.

Although in absolute terms the number of adults living with HIV/AIDS in small island developing States is not as large as in other country groupings, in terms of prevalence it is the highest in the whole of the Asian and Pacific region. Of those infected in the Pacific, 57 per cent are women. In Papua New Guinea, about 57,000 people are living with HIV/AIDS and the prevalence rose from 1.6 to 1.8 per cent between 2003 and 2005, an increase of 16 per cent over two years. HIV prevalence is also high in Thailand, at 1.4 per cent, and in Cambodia, at 1.6 per cent, although in the latter case the trend is decreasing.

In a number of other countries, including those in North and Central Asia, the most common way to acquire HIV is through drug use, i.e. by sharing needles or syringes with an infected person. In South and South-East Asia, on the other hand, people most often acquire HIV through unprotected sex. In India, Indonesia, Malaysia, Nepal and Viet Nam, for example, HIV prevalence among injecting drug users averages only 20 per cent.

Figure 6.4 Proportion of women and men aged 15-24 with comprehensive correct knowledge of HIV in Asia and the Pacific, latest year from 2000-2006



As prevalence rises through these modes of transmission, the epidemic is no longer confined to the higher-risk groups and, consequently, more women become infected. In fact, married women can be at high risk, as they acquire the virus from their husbands. In Papua New Guinea, women

account for half of all new infections. In Thailand, almost two in five new infections are within this group, while in Cambodia, 46 per cent of those newly infected are women (UNAIDS, 2006).

A condition for halting the epidemic is for people to understand how the virus spreads. Although many young people are aware of HIV/AIDS, their knowledge is not usually profound. According to data collected through surveys, the proportion of men aged 15 to 24 who are sufficiently well informed varies widely across the region: from over 50 per cent in Viet Nam to 36 per cent in India and less than 7 per cent in Uzbekistan. In the case of women of the same age, the number varies significantly, from over 50 per cent in Cambodia, Thailand and Viet Nam to 5 per cent or less in Azerbaijan, Tajikistan and Turkmenistan.

Women aged 15 and above living with HIV/AIDS (number): The estimated number of women aged 15 and above who are infected or living with HIV/AIDS at a given point in time. *Aggregates:* Sum of individual country values. Missing data for AIDS prevalence among women aged 15 and above have been imputed. *Source:* Joint United Nations Programme on HIV/AIDS, 2006 *Report on the global AIDS epidemic,* (online publication, accessed on August 2007).

Adults aged 15 and above living with HIV/AIDS (number): The estimated number of adults aged 15 and above, women and men, who are infected or living with HIV/AIDS at a given point in time. *Aggregates:* Sum of individual country values. Missing data for AIDS prevalence among adults aged 15 and above have been imputed. *Source:* Joint United Nations Programme on HIV/AIDS, 2006 *Report on the global AIDS epidemic,* (online publication, accessed on August 2007).

HIV prevalence rate, population aged 15-49 (percentage): The proportion of the population aged 15-49 living with HIV/AIDS at a given point in time in the total population. *Aggregates:* Averages are calculated using population aged 15-49 as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Population with advanced HIV with access to ART (percentage): The proportion of people with an advanced HIV infection, adults and children, who are receiving antiretroviral therapy (ART) according to a nationally approved treatment protocol or the WHO/Joint UN Programme on HIV and AIDS standards. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Women aged 15-24 with comprehensive correct knowledge of HIV/AIDS (percentage): The share of women aged 15-24 who (i) correctly identify the two major ways of preventing sexual transmission of HIV, (using condoms and limiting sex to one faithful, uninfected partner), (ii) reject the two most common local misconceptions about HIV transmission and (iii) know that a healthy-looking person can transmit HIV. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Men aged 15-24 with comprehensive correct knowledge of HIV/AIDS (percentage): The share of men aged 15-24 who (i) correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), (ii) reject the two most common local misconceptions about HIV transmission and (iii) know that a healthy-looking person can transmit HIV. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

AIDS deaths (number): The estimated number of adults and children that have died due to AIDS in a year, based on the modelling of HIV surveillance data. *Aggregates:* Sum of individual country values. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

AIDS deaths (per 100,000 population): The estimated number of adults and children that have died due to AIDS in a year, based on the modelling of HIV surveillance data (expressed per 100,000 population). *Aggregates:* Averages are calculated using total population as weight. Missing data for AIDS deaths have been imputed. *Source:* Calculated by ESCAP using data from United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

6.1 HIV/AIDS prevalence, prevention and treatment

	Adults aged 15 and above living with HIV/AIDS				HIV prevalence rate, aged 15-49		Population with advanced HIV with access to ART		Population aged 15-24 with comprehensive correct knowledge of HIV/AIDS			
	Women		Total						Women		Men	
	Number				Percentage		Percentage		Percentage			
	2003	2005	2003	2005	2003	2005						
East and North-East Asia												
China	130 000	180 000	530 000	650 000	0.10	0.10	27	(06)				
DPR Korea												
Hong Kong, China												
Macao, China												
Mongolia		100	500	500	0.10	0.10			34	(05)		
Republic of Korea	990	1 400	9 300	13 000	0.10	0.10						
South-East Asia												
Brunei Darussalam		100	100	100	0.10	0.10						
Cambodia	65 000	59 000	140 000	130 000	2.00	1.60	23	(04)	50	(05)	45	(05)
Indonesia	15 000	29 000	110 000	170 000	0.10	0.10	20	(06)	7	(00)		
Lao PDR	500	1 000	1 700	3 600	0.10	0.10	64	(04)				
Malaysia	14 000	17 000	56 000	67 000	0.40	0.50	22	(06)				
Myanmar	120 000	110 000	380 000	350 000	1.40	1.30	7	(06)				
Philippines	1 900	3 400	9 400	12 000	0.10	0.10	10	(06)				
Singapore	1 200	1 500	4 700	5 500	0.30	0.30						
Thailand	220 000	220 000	570 000	560 000	1.40	1.40	88	(06)	46	(05)		
Timor-Leste							0	(06)				
Viet Nam	64 000	84 000	210 000	250 000	0.40	0.50	17	(06)	42	(06)	50	(05)
South and South-West Asia												
Afghanistan	100	100	500	1 000	0.10	0.10						
Bangladesh	500	1 400	7 500	11 000	0.10	0.10	<3	(06)				
Bhutan		100	100	500	0.10	0.10						
India	1 500 000		5 200 000	2 500 000	0.90	0.36	4	(04)	20	(06)	36	(06)
Iran (Islamic Rep. of)	4 800	11 000	37 000	66 000	0.10	0.20	5	(06)				
Maldives												
Nepal	13 000	16 000	64 000	74 000	0.50	0.50	4	(06)	28	(06)	44	(06)
Pakistan	7 300	14 000	55 000	84 000	0.10	0.10						
Sri Lanka	100	1 000	3 100	5 000	0.10	0.10	<8	(06)				
Turkey							75	(04)				
North and Central Asia												
Armenia	1 000	1 000	2 600	2 900	0.10	0.10	0	(04)	23	(05)	15	(05)
Azerbaijan	100	1 000	1 400	5 400	0.10	0.10	<1	(06)	2	(00)		
Georgia	500	1 000	2 800	5 600	0.10	0.20	32	(06)				
Kazakhstan	5 600	6 800	10 000	12 000	0.10	0.10	10	(06)	22	(06)		
Kyrgyzstan	500	1 000	1 100	4 000	0.10	0.10			20	(06)		
Russian Federation	160 000	210 000	760 000	940 000	0.90	1.10	11	(06)				
Tajikistan		500	1 300	4 900	0.10	0.10	<5	(06)	2	(05)		
Turkmenistan				500		0.10	0	(04)	5	(06)		
Uzbekistan	1 000	4 100	11 000	31 000	0.10	0.20	0	(04)	31	(06)	7	(02)
Pacific												
American Samoa												
Cook Islands												
Fiji	100	500	500	1 000	0.10	0.10						
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue							<1	(06)				
Northern Mariana Is.												
Palau												
Papua New Guinea	29 000	34 000	49 000	57 000	1.60	1.80	8	(06)				
Samoa												
Solomon Islands												
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	1 000	1 000	14 000	16 000	0.10	0.10	75	(04)				
Japan	9 600	9 900	17 000	17 000	0.10	0.10	75	(04)				
New Zealand			1 400	1 400	0.10	0.10	75	(04)				
ESCAP	2 367 123	1 742 054	8 261 000	6 051 900	0.41	0.27						
LLDC	22 033	31 700	94 200	140 300	0.18	0.20						
LDC	199 100	187 600	593 800	570 100	0.48	0.44						
SIDS	30 300	36 000	54 200	63 500	0.95	1.07						
ASEAN	501 700	525 000	1 481 900	1 548 200	0.47	0.47						
SAARC	1 521 000	753 754	5 330 200	2 675 500	0.71							
Central Asia	8 833	15 400	30 200	66 300	0.10	0.14						
Low-income	1 801 133	1 046 354	6 121 600	3 501 000	0.72							
Middle-income	553 100	681 800	2 092 900	2 497 900	0.20	0.22						
High-income	12 890	13 900	46 500	53 000	0.10	0.10						
Africa	12 248 300	12 886 500	21 197 800	21 628 400	5.13	5.05						
Latin America & Carib.	568 800	645 500	1 710 200	1 873 400	0.55	0.57						
North America	286 700	309 600	1 155 000	1 259 000	0.57	0.57						
Europe	387 400	429 700	1 084 400	1 173 700	0.39	0.37						
Other Asia-Pacific												
World												

6.2 AIDS deaths

	AIDS deaths					
	Number			Per 100,000 population		
	2001	2003	2005	2001	2003	2005
East and North-East Asia						
China	30 000	26 000	31 000	2	2	2
DPR Korea						
Hong Kong, China	200	200		3	3	
Macao, China						
Mongolia	200		100	8		4
Republic of Korea	200	500	500	0	1	1
South-East Asia						
Brunei Darussalam	200		100	59		27
Cambodia	13 000	17 000	16 000	100	126	115
Indonesia	600	2 300	5 500	0	1	2
Lao PDR	200	100	100	4	2	2
Malaysia	1 500	1 900	4 000	6	8	16
Myanmar	14 000	36 000	37 000	30	76	77
Philippines	200	500	1 000	0	1	1
Singapore	200	500	100	5	12	2
Thailand	58 000	40 000	21 000	95	64	33
Timor-Leste						
Viet Nam	5 000	8 900	13 000	6	11	15
South and South-West Asia						
Afghanistan		100	100		0	0
Bangladesh		500	500		0	0
Bhutan		100	100		16	16
India						
Iran (Islamic Rep. of)	500	1 000	1 600	1	1	2
Maldives						
Nepal	2 000	4 000	5 100	8	15	19
Pakistan	3 900	1 500	3 000	3	1	2
Sri Lanka	200	100	500	1	1	3
Turkey						
North and Central Asia						
Armenia	200	100	500	7	3	17
Azerbaijan		100	100		1	1
Georgia	200	100	500	4	2	11
Kazakhstan	200	1 000	1 000	1	7	7
Kyrgyzstan	200	100	100	4	2	2
Russian Federation						
Tajikistan		100	100		2	2
Turkmenistan						
Uzbekistan	200	100	500	1	0	2
Pacific						
American Samoa						
Cook Islands						
Fiji	200	100	100	25	12	12
French Polynesia						
Guam						
Kiribati						
Marshall Islands						
Micronesia (F.S.)						
Nauru						
New Caledonia						
Niue						
Northern Mariana Is.						
Palau						
Papua New Guinea	500	2 100	3 300	9	36	54
Samoa						
Solomon Islands						
Tonga						
Tuvalu						
Vanuatu						
ESCAP Developed Economies						
Australia	200	500	500	1	3	2
Japan	500	1 300	1 400	0	1	1
New Zealand	200			5		
ESCAP						
LLDC		5 800	7 800		5	6
LDC		57 800	58 900		22	22
SIDS	900	2 700	3 500	9	25	31
ASEAN	92 900	107 200	97 800	18	20	18
SAARC						
Central Asia	1 000	1 600	2 800	2	2	4
Low-income						
Middle-income	91 800	73 300	66 900	5	4	4
High-income	1 700	3 000	2 600	1	2	1
Africa	1 927 650	1 904 700	1 948 300	233	231	226
Latin America & Carib.	78 900	81 200	88 100	15	15	16
North America	15 500	17 000	17 000	5	5	5
Europe	21 700	27 700	36 100	5	5	7
Other Asia-Pacific						
World						

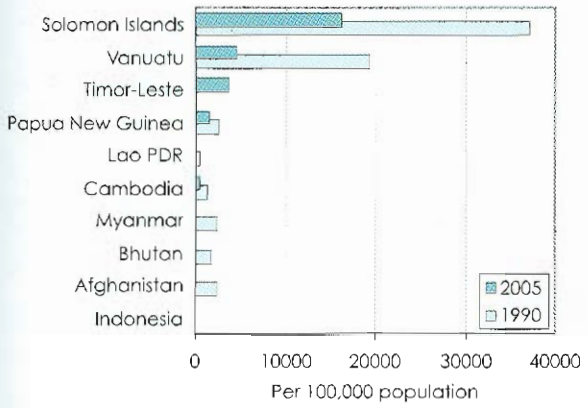
7. Other major infectious diseases

Malaria remains a problem in many parts of the Asian and Pacific region despite a decrease in the number of cases reported. And while tuberculosis prevalence and death rates are on the decline in the region, they remain far higher than in Latin America and the Caribbean.

The number of malaria cases declined from over 5 million in 1990 to just over 3.1 million in 2005. The reduction was the fastest in the ASEAN region, more than a half. In 2005, the SAARC region accounted for two thirds of all cases in Asia and the Pacific.

In terms of incidence, the Pacific is the most affected subregion. Timor-Leste had an incidence of 3,669 cases and Vanuatu had 4,566 new cases reported per 100,000 population, but both are dwarfed by Solomon Islands, where 16,249 cases per 100,000 population were reported in 2005.

Figure 7.1 Ten most affected countries/areas for malaria incidence, 1990 and 2005



In South-West Asia, Afghanistan and the Islamic Republic of Iran have considerably reduced malaria incidence since the early 1990s. While Afghanistan had an incidence of 2,508 cases per 100,000 population in 1990, by 2005 that incidence had been reduced to 266. During the same period, the Islamic Republic of Iran reduced malaria incidence from 137 to 27. Nonetheless, Afghanistan still has one of the highest incidences of malaria in the region, despite an increase in the use of insecticide-treated mosquito nets, one of the simplest and most effective ways to reduce exposure.

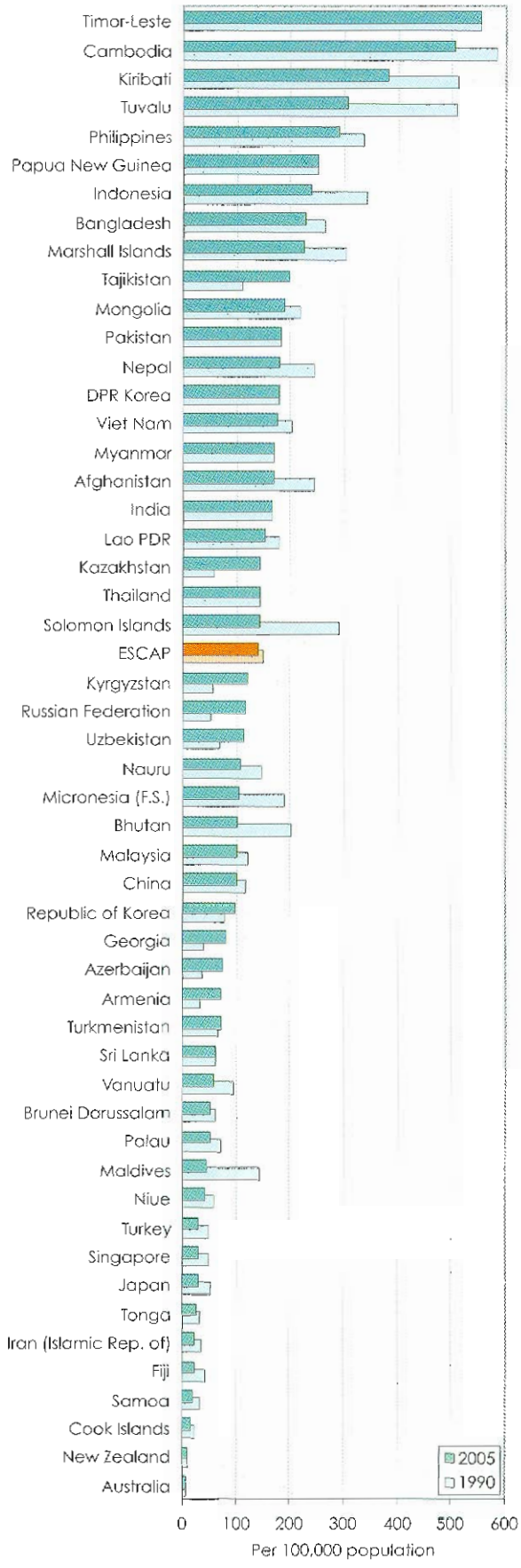
Another major disease of concern across Asia and the Pacific is tuberculosis. As in the rest of the world, both prevalence and death rates related to this disease have started to decline in the region. Nonetheless, while tuberculosis prevalence, at 238 per 100,000 population, is about half that in Africa, it is far higher than in Latin America and the Caribbean.

Most groups of countries have made good progress in reversing the incidence of tuberculosis and thus reducing prevalence. Although prevalence in Asia and the Pacific declined by 39 per cent between 1990 and 2005, in the ASEAN and SAARC regions they dropped by 43 per cent and 45 per cent, respectively. In Central Asia, however, tuberculosis prevalence, as well as incidence, has increased over the levels prevailing in 1990.

Annual incidence figures for Central Asia increased to 117 per 100,000 population in 2005, against 60 in 1990. This prompted an increase in prevalence figures from 100 to 141 per 100,000 population during the same period. In the Russian Federation, prevalence increased from 82 to 150 per 100,000 population in a decade and a half, while in Kazakhstan, prevalence increased from 96 to 155 per 100,000. Finally, the prevalence in Tajikistan, which had been 196 per 100,000 population in 1990, rose to 297 in 2005, the highest in the subregion.

Cambodia and Timor-Leste, with prevalence higher than 700 per 100,000 population, have the most serious tuberculosis problem among the countries of the region. In the Pacific, the most serious problems occur in Kiribati, Papua New Guinea and Tuvalu, with rates over 400 per 100,000 population, although the numbers for these countries are considerably lower than in 1990.

Figure 7.2 Tuberculosis incidence in Asia and the Pacific, 1990 and 2005



Malaria incidence (per 100,000 population): The number of reported new cases of malaria in a given time period, expressed per 100,000 population. *Aggregates:* Averages are calculated using total population as weight. Missing data for malaria incidence have been imputed. *Source:* World Health Organization, WHO Global Health Atlas, (online database, accessed on September 2007).

Malaria reported cases (number): The number of notified cases of malaria in a given time period. *Aggregates:* Sum of individual country values. Missing data for malaria reported cases have been imputed. *Source:* World Health Organization, WHO Global Health Atlas, (online database, accessed on September 2007).

Malaria reported deaths (number): The number of deaths attributable to malaria in a given time period. *Aggregates:* Sum of individual country values. *Source:* World Health Organization, *World Malaria Report 2005*, (online publication, accessed on September 2007).

Tuberculosis prevalence (per 100,000 population): The number of existing cases of all forms of tuberculosis (TB) in the population at a given point in time, expressed per 100,000 population. *Aggregates:* Averages are calculated using total population as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Tuberculosis incidence (per 100,000 population): The estimated number of new tuberculosis cases in a year, expressed per 100,000 population. All forms of tuberculosis are included, including cases of people with HIV. *Aggregates:* Averages are calculated using total population as weight. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

DOTS detection rate (percentage): The ratio of the annual new smear-positive notifications (under DOTS) to estimated annual new smear-positive incidence, expressed as a percentage. DOTS, Directly Observable Treatment – Short course, is an internationally-recommended TB control strategy. Case detection means that TB is diagnosed in a patient and is reported within the national surveillance system, and then to WHO. *Aggregates:* Averages are calculated using the number of TB cases per year as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

7.1 Malaria

	Incidence				Reported cases				Reported deaths			
	Per 100,000 population				Number				Number			
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
East and North-East Asia												
China	8	4	1	2	89 000	47 118	18 620	21 935	35	34	39	48
DPR Korea			321	28			73 742	6 728				0
Hong Kong, China				0				32				
Macao, China				0				0				
Mongolia				0				0				
Republic of Korea	0	0	9	3	0	107	4 142	1 323	0	0	1	0
South-East Asia												
Brunei Darussalam												
Cambodia	1 277	675	489	354	123 796	76 923	62 439	49 436	1 020	614	608	296
Indonesia	94	62	116	192	171 908	123 226	245 612	433 326				97
Lao PDR	541	1 109	766		22 044	52 021	40 023		372	620	350	77
Malaysia	279	288	55	22	50 500	59 208	12 705	5 569	43	35	35	33
Myanmar	2 464	1 522	1 291	316	989 042	656 547	592 354	151 508			2 746	1 707
Philippines	141	83	48	55	86 200	56 852	36 596	46 485	913	643	536	145
Singapore				4				166				
Thailand	504	144	135	47	273 880	82 743	81 692	29 782	1 464		625	71
Timor-Leste			6 089	3 669			49 836	39 164				71
Viet Nam	187	137	79	23	123 796	100 116	62 442	19 497	3 340	348	148	18
South and South-West Asia												
Afghanistan	2 508		983	266	317 479		203 911	66 798				
Bangladesh	48	121	40	31	53 875	152 729	55 599	48 121		742	469	481
Bhutan	1 735	4 573	1 063	286	9 497	23 188	5 935	1 825				5
India	235	313	194	160	2 018 783	2 988 231	2 031 790	1 817 093			946	963
Iran (Islamic Rep. of)	137	109	30	27	77 470	67 532	19 716	18 966			4	
Maldives	7	7	7		16	17	20				0	
Nepal	120	45	31	18	22 856	9 718	7 616	4 962		0	0	10
Pakistan	71	88	57	81	79 689	111 836	82 526	127 825				
Sri Lanka	1 679	787	1 122	9	287 384	142 294	210 039	1 640				0
Turkey	15	131	17	3	8 680	82 096	11 432	2 084	0	0		0
North and Central Asia												
Armenia	0	16	5	0	0	502	141	7				0
Azerbaijan	0	36	19	3	24	2 840	1 526	242				0
Georgia	0	0	5	3	1	1	245	155	0	0		0
Kazakhstan				0				6				0
Kyrgyzstan	0	0	0	4	1	3	12	226	0	0		0
Russian Federation				0				205				3
Tajikistan	3	106	309	35	175	6 103	19 064	2 309				0
Turkmenistan	0	0	1	0	1	10	24	1	0	0		0
Uzbekistan	0	0	1	0	28	27	126	102	0	0		0
Pacific												
American Samoa												
Cook Islands												
Fiji												
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	2 539	2 103	1 509	1 627	104 900	99 000	81 192	98 762	457	415	617	725
Samoa												
Solomon Islands	37 149	32 758	16 341	16 249	116 500	118 521	67 884	76 762	33	51	38	38
Tonga												
Tuvalu												
Vanuatu	19 274	6 941	3 385	4 566	28 805	11 954	6 422	9 834	32	4		0
ESCAP Developed Economies												
Australia												
Japan												
New Zealand												
ESCAP	163	155	112	80	5 068 987	5 280 249	4 086 663	3 102 418			7 162	4 788
LLDC	396	265	237	74	372 117	290 553	278 390	95 372				92
LDC	844	575	436	170	1 694 242	1 308 079	1 092 039	467 304		2 031	4 211	2 685
SIDS												
ASEAN	419	251	218	136	1 841 345	1 207 815	1 134 042	754 676				2 444
SAARC	246	286	186	136	2 789 579	3 624 142	2 597 436	2 068 264			1 415	1 459
Central Asia	0	14	30	4	242	9 498	21 150	3 048				
Low-income	308	318	217	146	3 984 381	4 579 321	3 430 556	2 513 521			5 922	4 386
Middle-income	61	37	33	33	1 083 760	699 975	651 119	670 824	2 487	716	1 239	402
High-income												
Africa	6 987	5 077	5 552	6 809	44 364 561	36 736 743	45 408 376				259 510	
Latin America & Carib.	259	292	236	164	1 055 897	1 300 673	1 139 240					
North America												
Europe				2								34
Other Asia-Pacific			1 299	40			1 406 244	48 104				
World												

7.2 Tuberculosis

	Prevalence				Incidence				DOTS detection rate	
	Per 100,000 population				Per 100,000 population				Percentage	
	1990	1995	2000	2005	1990	1995	2000	2005	2000	2005
East and North-East Asia										
China	325	304	271	208	116	111	105	100	31	80
DPR Korea	428	400	368	179	178	178	178	178	26	99
Hong Kong, China	138	98	87	77					60	53
Macao, China	123	95	87	87					95	81
Mongolia	566	486	285	206	219	209	200	191	62	82
Republic of Korea	123	110	142	135	79	84	90	96		18
South-East Asia										
Brunei Darussalam	113	93	56	63	62	59	56	54	100	112
Cambodia	951	853	806	703	582	555	530	506	49	66
Indonesia	440	380	327	262	343	304	270	239	20	66
Lao PDR	472	407	346	306	178	170	162	155	40	68
Malaysia	195	154	139	131	122	115	108	102	73	73
Myanmar	417	385	287	170	171	171	171	171	48	95
Philippines	820	773	554	450	335	320	305	291	48	75
Singapore	52	49	39	28	50	47	37	29	16	100
Thailand	355	327	252	204	142	142	142	142	46	73
Timor-Leste	1 200	1 111	1 111	713	556	556	556	556		44
Viet Nam	470	346	251	235	202	192	184	175	82	84
South and South-West Asia										
Afghanistan	607	571	449	288	244	242	209	168	13	44
Bangladesh	630	575	494	406	264	251	239	227	26	59
Bhutan	374	272	218	174	203	162	129	103	31	31
India	570	533	457	299	168	168	168	168	12	61
Iran (Islamic Rep. of)	50	55	40	30	36	40	31	23	58	64
Maldives	151	89	90	53	142	98	68	47	73	95
Nepal	621	524	310	244	243	220	199	180	57	67
Pakistan	429	424	416	297	181	181	181	181	3	37
Sri Lanka	109	99	109	80	60	60	60	60	64	86
Turkey	83	62	49	44	49	40	31	29		3
North and Central Asia										
Armenia	53	70	96	79	33	46	71	71	47	60
Azerbaijan	58	76	113	85	35	50	75	76	6	55
Georgia	52	68	98	86	38	54	82	83	34	91
Kazakhstan	96	95	145	155	59	62	141	144	93	72
Kyrgyzstan	90	118	157	133	55	77	135	121	42	67
Russian Federation	82	133	190	150	51	82	127	119	4	30
Tajikistan	196	106	193	297	112	65	118	198		22
Turkmenistan	106	80	130	90	64	52	92	70	17	43
Uzbekistan	115	119	140	139	68	76	93	113	4	39
Pacific										
American Samoa	27	22	15	9					77	114
Cook Islands	49	39	26	26	22	20	18	16		77
Fiji	62	42	38	30	42	34	28	23	61	72
French Polynesia	167	107	51	32					70	65
Guam	116	93	58	39					146	93
Kiribati	1 157	928	559	426	513	464	420	380	32	73
Marshall Islands	682	547	430	269	302	274	248	224	19	77
Micronesia (F.S.)	311	216	171	123	188	155	128	105	24	61
Nauru	328	263	206	156	146	132	119	108	61	
New Caledonia	145	78	48	30					53	67
Niue	133	106	96	87	59	53	48	44		
Northern Mariana Is.	232	186	84	92					102	54
Palau	88	64	115	61	70	64	58	52		64
Papua New Guinea	789	722	637	475	250	250	250	250	7	21
Samoa	44	31	27	27	32	27	23	20	70	66
Solomon Islands	658	459	289	201	292	229	181	142	32	55
Tonga	53	40	34	32	34	31	28	25	120	96
Tuvalu	1 146	857	723	495	508	429	362	305		35
Vanuatu	212	162	87	84	94	81	70	60	43	61
ESCAP Developed Economies										
Australia	7	7	6	6	7	7	6	6	23	42
Japan	70	60	45	38	52	45	34	28	23	57
New Zealand	10	11	11	9	10	10	11	9	41	51
ESCAP	389	366	322	238	150	147	145	141	24	65
LLDC	294	282	241	201	129	132	147	144	39	54
LDC	598	544	447	351	256	246	234	220	33	64
SIDS	469	421	366	275	188	183	173	174	12	34
ASEAN	483	424	338	275	273	253	234	218	39	73
SAARC	556	520	449	306	179	178	176	174	14	58
Central Asia	100	99	138	141	60	65	104	117	40	51
Low-income	545	505	434	300	183	181	179	177	20	61
Middle-income	309	292	260	204	136	131	128	121	30	72
High-income	77	67	64	57	53	50	44	42	23	37
Africa	284	379	434	445	139	209	270	298	41	50
Latin America & Carib.	158	125	100	78	104	86	72	61	45	64
North America	7	6	4	3	9	8	6	5	82	83
Europe	38	39	39	30	31	32	31	28		
Other Asia-Pacific	97	93	72	63	58	55	52	45	47	42
World										

8. Chronic diseases and other health risks

The Asian and Pacific region is undergoing a "health transition" characterized by a rise in the prevalence of non-communicable or chronic diseases.

Infectious and parasitic diseases have historically been the main causes of death in Asia and the Pacific. The contribution of cancer, cardiovascular diseases, chronic obstructive pulmonary diseases and others to mortality has increased considerably in the last few years. In 2005, chronic diseases accounted for 64 per cent of all deaths in the Asian and Pacific region, and they are now the leading causes of mortality in almost all subregions.

Chronic diseases account for 81 per cent of deaths in high-income economies, compared with 76 per cent in middle-income economies and half of all deaths in low-income economies. Cancer and cardiovascular diseases, accounting for 31 per cent each, are the leading causes of death in high-income economies (table 8.1).

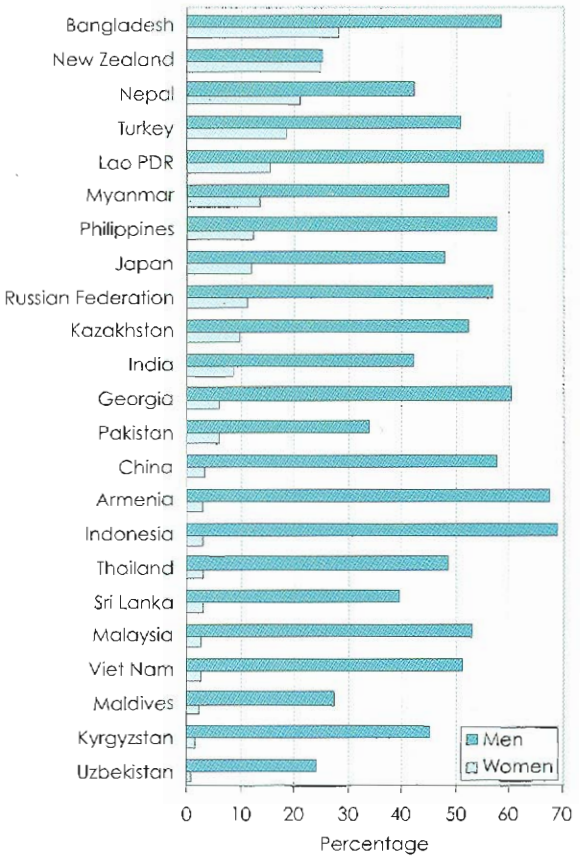
In Central Asia, 80 per cent of deaths are caused by chronic diseases — the highest percentage among all subregions. Cardiovascular diseases are the main single cause, accounting for 55 per cent of all deaths. In Georgia, three quarters of all deaths are caused by cardiovascular diseases, while in the Russian Federation three in five deaths are due to such diseases.

An increasing prevalence of risk factors, such as tobacco and alcohol consumption, unhealthy diets and physical inactivity, contribute to the surge in chronic diseases, particularly in high-income economies.

Several Asian countries have some of the highest proportions of the population smoking in the world. In Indonesia, the Lao People's Democratic Republic and Armenia, the prevalence of smoking among male adults exceeds 65 per cent. In others, such as Malaysia, the Philippines, Bangladesh, China and the Russian Federation, more than half of the male population smokes. Although the prevalence of smoking among women is lower than among men everywhere, there are still countries where a considerable part of the female population smokes, as in Bangladesh, Nepal and Turkey.

This high prevalence of smoking in the region does not appear to be likely to fade in the near future, since smoking among youths aged 13-15 is also widespread. In the Russian Federation and Georgia, more than a quarter of all adolescents

Figure 8.1 Prevalence of smoking among women compared with men in Asia, latest year between 2001 and 2005



smoke, while in Bhutan and India, the number is close to one in five. In the Pacific, the Cook Islands and Palau are noteworthy in that the prevalence of smoking among youngsters reaches levels of 45 and 33 per cent, respectively (table 8.2).

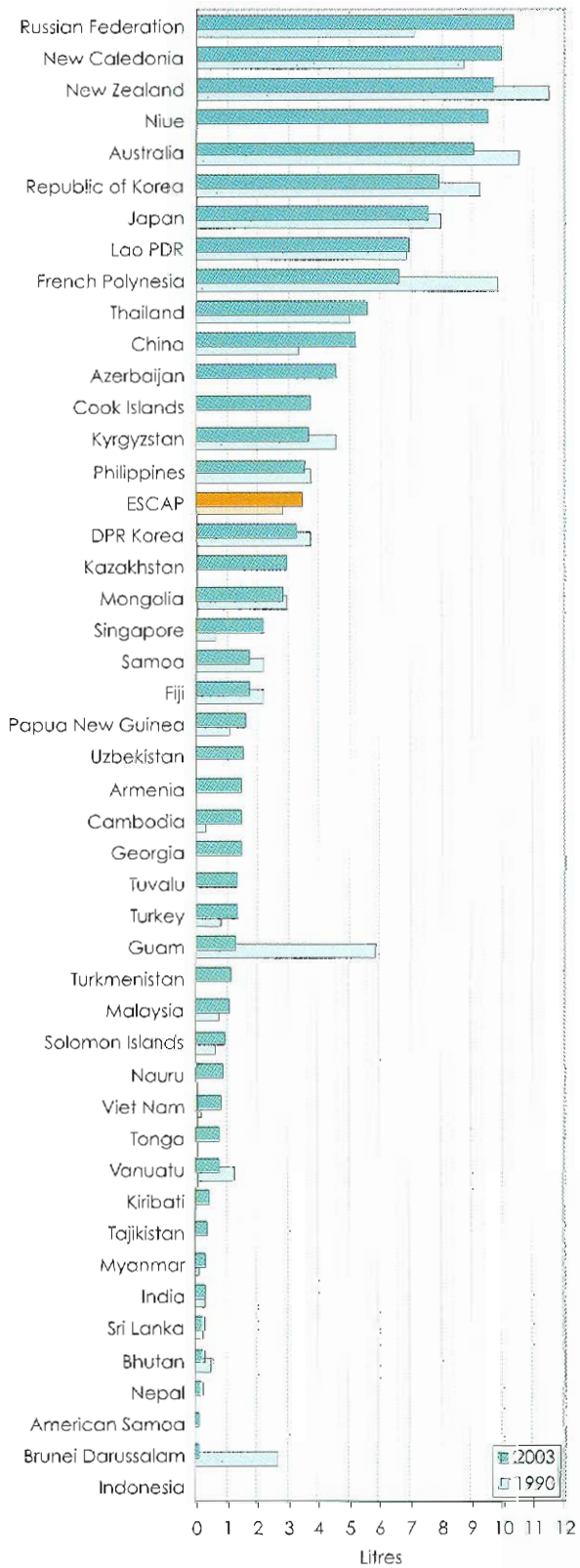
Alcohol consumption is also a risk factor in the Asia and the Pacific region although, at 3.5 litres per adult annually, it is still lower than in Europe, North America and Latin America and the Caribbean. Asia and the Pacific, along with Africa, on the other hand, are the only regions where per capita alcohol consumption increased between 1990 and 2003.

Across subregions, per capita alcohol consumption in Central Asia declined from the levels in 1990. Small island developing States, on the other hand, registered the largest increase in alcohol consumption in Asia and the Pacific. Among country income groupings, only middle-income economies recorded an increase in alcohol consumption between 1990 and 2003.

While several countries registered an increase in their alcohol consumption levels, the highest increase took place in the Russian Federation, where consumption increased from 7.1 litres per person in

1990 to 10.3 litres in 2003. In China, alcohol consumption increased from 3.4 to 5.2 litres per person during the same period.

Figure 8.2 Alcohol consumption per capita among adults aged 15 years and over in Asia and the Pacific, 1990 and 2003



Causes of death (% of all deaths): Estimated causes of deaths, expressed as the percentage of all deaths. Refers to all diseases, morbid conditions or injuries that either resulted in or contributed to death, and the circumstances of the accident or violence that produced any such injuries, in accordance with the International Classification of Diseases. Symptoms or modes of dying, such as heart failure or asthenia, are not considered to be causes of death for statistical purposes. WHO uses a combination of data sources in the estimation, including administrative data and models. The level of evidence and uncertainty vary by country. *Aggregates:* Averages are calculated using the total number of deaths as weight. *Source:* World Health Organization, Causes of Death database, (online database, accessed on September 2007).

Suicide rate (per 100,000 population): The number of deaths caused by suicide, expressed per 100,000 population. Cross-country comparability of suicide data is affected by the criteria retained by certifying officers to establish the person's intention of killing themselves, by who is responsible for filling the death certificate, the frequency of forensic investigations and confidentiality rules on the causes of death of each person. All of these factors are affected by the cultural and religious context of each country. *Source:* World Health Organization, Suicide statistics, (online database, accessed on September 2007).

Prevalence of smoking among women (% of women): The prevalence among females aged 15 years and above of current tobacco smoking, including cigarettes, cigars, pipes or any other smoked tobacco products. Current smoking includes both daily and non-daily or occasional smoking. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Prevalence of smoking among men (% of men): The prevalence among males aged 15 years and above of current tobacco smoking, including cigarettes, cigars, pipes or any other smoked tobacco products. Current smoking includes both daily and non-daily or occasional smoking. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Prevalence of smoking among adolescents (% of population aged 13-15): The prevalence among boys and girls aged 13-15 of tobacco use, including smoking, oral tobacco and snuff, on more than one occasion in the 30 days preceding the survey. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Alcohol consumption per capita (litres per adult aged 15 and above): The sum of alcohol production and imports, less alcohol exports, divided by the adult population, expressed as litres of pure alcohol per capita in population 15 years or older. *Aggregates:* Averages are calculated using population aged 15 and above as weight. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

8.1 Causes of death

	Injuries	Cardio-vascular diseases	Cancer	Chronic respiratory diseases	Diabetes	Other chronic diseases	Communicable, maternal & perinatal, nutritional deficiencies	Suicide rate		
								Female	Male	Total
	% of total deaths (Year: 2002)							Per 100,000 population		
East and North-East Asia										
China	11	33	20	17	1	8	10	15	13	14 (99)
DPR Korea	7	31	10	7	3	10	32			
Hong Kong, China								12	25	19 (04)
Macao, China										
Mongolia	11	30	21	3	0	12	23			
Republic of Korea	12	28	28	6	5	15	6	15	33	24 (04)
South-East Asia										
Brunei Darussalam	11	30	19	8	8	14	10			
Cambodia	5	14	6	3	2	9	61			
Indonesia	10	28	12	7	3	11	29	0	0	0 (91)
Lao PDR	9	17	6	5	1	7	55			
Malaysia	9	30	17	8	4	12	20			
Myanmar	9	24	7	5	2	9	44			
Philippines	9	27	9	6	3	12	34	2	3	2 (93)
Singapore	5	38	29	4	4	8	12	8	13	10 (03)
Thailand	11	20	14	7	5	13	30	4	12	8 (02)
Timor-Leste	9	20	6	5	1	8	51			
Viet Nam	9	32	12	10	2	10	25			
South and South-West Asia										
Afghanistan	6	14	4	2	1	9	64			
Bangladesh	10	23	7	5	1	8	46			
Bhutan	9	24	6	5	1	7	48			
India	11	28	8	7	2	8	36	8	13	11 (02)
Iran (Islamic Rep. of)	18	42	11	4	1	12	12			
Maldives	7	30	8	6	2	9	38			
Nepal	9	21	7	5	2	7	49			
Pakistan	8	22	6	5	1	8	50			
Sri Lanka	10	34	13	11	4	15	13	17	45	31 (91)
Turkey	6	55	11	6	1	6	15			
North and Central Asia										
Armenia	5	54	18	4	6	8	5	1	3	2 (03)
Azerbaijan	4	51	11	4	3	10	17	1	2	1 (02)
Georgia	2	75	11	1	2	5	4	1	3	2 (01)
Kazakhstan	13	53	13	4	1	8	8	9	51	29 (03)
Kyrgyzstan	9	47	9	7	1	10	17	3	15	9 (04)
Russian Federation	14	61	12	2	0	6	5	11	62	34 (04)
Tajikistan	6	47	6	4	1	9	27	2	3	3 (01)
Turkmenistan	8	53	7	3	1	9	19	4	14	9 (98)
Uzbekistan	7	56	7	4	2	10	14	3	8	6 (03)
Pacific										
American Samoa										
Cook Islands										
Fiji	6	39	8	8	4	15	20			
French Polynesia										
Guam										
Kiribati	3	20	4	4	7	29	33			
Marshall Islands	6	36	8	6	4	17	23			
Micronesia (F.S.)	6	31	8	7	4	14	30			
Nauru	8	44	10	6	5	13	14			
New Caledonia										
Niue										
Northern Mariana Is.										
Palau	5	37	9	7	5	15	22			
Papua New Guinea	9	18	6	4	1	9	53			
Samoa	6	37	8	7	5	14	23			
Solomon Islands	5	24	7	7	3	15	39			
Tonga	5	37	10	8	5	13	22			
Tuvalu	7	32	8	7	4	16	26			
Vanuatu	6	31	8	7	4	15	29	2	8	5 (02)
ESCAP Developed Economies										
Australia	6	37	29	6	3	15	4	5	17	11 (03)
Japan	8	31	32	5	1	11	12	13	36	24 (04)
New Zealand	5	41	27	7	3	14	3	4	20	12 (00)
ESCAP	11	32	13	9	2	8	25			
LLDC	8	32	7	4	1	9	39			
LDC	9	21	6	4	1	8	50			
SIDS	8	25	11	5	2	10	40			
ASEAN	9	26	11	7	3	11	33			
SAARC	10	26	8	6	2	8	39			
Central Asia	8	55	10	4	2	9	13			
Low-income	10	27	8	6	2	8	39			
Middle-income	11	38	17	12	1	8	13			
High-income	9	31	31	5	2	12	10			
Africa										
Latin America & Carib.										
North America										
Europe										
Other Asia-Pacific										
World										

8.2 Tobacco and alcohol consumption

	Prevalence of smoking			Alcohol consumption per capita					
	Women	Men	Adolescents	Litres per adult aged 15 and above					
	% of women	% of men	% of population aged 13-15	1990	1995	2000	2001	2002	2003
East and North-East Asia									
China	4 (03)	57 (03)		3.4	5.0	5.2	5.2	5.1	5.2
DPR Korea				3.7	3.9	3.7	2.5	3.2	3.3
Hong Kong, China									
Macao, China									
Mongolia			15 (03)	2.9	1.5	2.8	2.6	2.9	2.8
Republic of Korea			10 (05)	9.3	7.8	7.3	7.8	7.8	7.9
South-East Asia									
Brunei Darussalam				2.7	0.7	0.4	0.5	0.1	0.1
Cambodia			5 (03)	0.4	0.3	1.5	1.9	1.4	1.5
Indonesia	3 (01)	69 (01)		0.1	0.1	0.1	0.1	0.1	0.1
Lao PDR	15 (03)	66 (03)		6.9	9.2	6.8	6.9	6.9	6.9
Malaysia	3 (03)	53 (03)	17 (04)	0.8	0.9	1.1	1.1	1.1	1.1
Myanmar	14 (03)	49 (03)	13 (04)	0.1	0.2	0.3	0.4	0.3	0.3
Philippines	12 (03)	58 (03)	16 (04)	3.7	3.8	3.8	3.8	3.6	3.5
Singapore			9 (00)	0.6	2.0	2.1	2.1	2.2	2.2
Thailand	3 (01)	49 (01)	16 (05)	5.0	5.0	5.2	5.8	5.8	5.6
Timor-Leste									
Viet Nam	3 (03)	51 (03)		0.2	0.3	0.7	0.7	0.9	0.9
South and South-West Asia									
Afghanistan									
Bangladesh	28 (03)	58 (03)							
Bhutan			18 (04)	0.5	0.5	0.6	0.6	0.2	0.2
India	9 (03)	42 (03)	18 (04)	0.3	0.3	0.3	0.3	0.3	0.3
Iran (Islamic Rep. of)			13 (03)						
Maldives	2 (01)	27 (01)							
Nepal	21 (03)	42 (03)			0.1	0.1	0.1	0.2	0.2
Pakistan	6 (03)	34 (03)							
Sri Lanka	3 (03)	40 (03)	8 (03)	0.2	0.2	0.2	0.2	0.3	0.3
Turkey	19 (03)	51 (03)	8 (03)	0.8	1.5	1.4	1.4	1.4	1.4
North and Central Asia									
Armenia	3 (01)	68 (01)	7 (04)		2.5	1.6	1.4	1.4	1.5
Azerbaijan					1.2	6.7	5.8	5.0	4.5
Georgia	6 (03)	60 (03)	25 (03)		6.8	1.8	1.7	1.6	1.5
Kazakhstan	10 (03)	52 (03)	11 (04)		4.7	3.4	2.8	3.7	3.0
Kyrgyzstan	2 (05)	45 (05)	7 (04)	4.5	3.2	2.2	2.2	3.0	3.6
Russian Federation	11 (03)	57 (03)	27 (04)	7.1	11.2	10.5	10.4	10.3	10.3
Tajikistan			5 (04)		1.8	0.3	0.8	0.5	0.4
Turkmenistan					2.1	1.5	1.1	1.1	1.2
Uzbekistan	1 (02)	24 (02)			1.5	1.6	1.6	1.5	1.5
Pacific									
American Samoa						0.2	0.1	0.1	0.2
Cook Islands			45 (03)			2.3	0.7	0.4	3.7
Fiji			12 (05)	2.2	1.7	2.1	2.0	2.0	1.7
French Polynesia				9.8	9.6	7.1	7.5	6.9	6.6
Guam				5.8	4.7	5.0	4.9	4.5	1.3
Kiribati						1.0	1.2	0.7	0.5
Marshall Islands									
Micronesia (F.S.)									
Nauru						4.9	3.7	1.0	0.9
New Caledonia				8.7	9.8	7.6	9.2	10.2	10.0
Niue						9.0	10.9	6.0	9.5
Northern Mariana Is.									
Palau			33 (05)						
Papua New Guinea				1.1	1.0	2.1	2.3	1.8	1.6
Samoa				2.2	2.3	2.3	2.5	2.1	1.7
Solomon Islands				0.6	0.3	0.3	0.6	0.6	1.0
Tonga						0.7	0.8	0.8	0.8
Tuvalu						1.1	1.9	0.5	1.4
Vanuatu				1.3	1.8	0.9	0.8	0.8	0.8
ESCAP Developed Economies									
Australia				10.5	9.7	9.5	9.3	9.2	9.0
Japan	12 (03)	48 (03)		8.0	7.9	7.6	7.6	7.6	7.6
New Zealand	25 (01)	25 (01)		11.5	10.4	8.8	8.5	9.8	9.7
ESCAP				2.8	3.6	3.5	3.5	3.5	3.5
LLDC					2.3	2.2	2.0	2.1	2.0
LDC									
SIDS				1.4	1.9	2.2	2.4	2.2	2.1
ASEAN				1.3	1.4	1.5	1.6	1.6	1.5
SAARC				0.3	0.3	0.3	0.3	0.3	0.3
Central Asia					3.0	2.6	2.3	2.4	2.2
Low-income				0.4	0.4	0.4	0.4	0.4	0.4
Middle-income				3.3	4.8	4.8	4.7	4.7	4.8
High-income				8.4	7.9	7.6	7.7	7.7	7.7
Africa				2.8	2.8	3.5	3.4	3.4	3.4
Latin America & Carib.				5.6	5.7	5.5	5.3	5.5	5.4
North America				9.3	8.5	8.5	8.5	8.4	8.5
Europe				11.0	10.4	10.1	10.0	10.1	10.0
Other Asia-Pacific				1.1	1.1	0.7	0.6	0.6	
World									

9. Financial and human resources for health

Proportion of expenditure used on health has increased in most of the Asian and Pacific countries since 2000.

Disparities in health conditions between rich and poor countries are strongly related to spending levels. In some countries, however, vaccination services and health facilities are underutilized because parts of the population do not recognize the benefits of medical services. It is therefore necessary not only to increase spending, but also to advocate the use of medical services and take steps to inform the population.

Expenditure on health relative to GDP varies widely in Asia and the Pacific. Pacific islands have some of the highest expenditures on health; such countries as Kiribati, the Marshall Islands, Niue and Tuvalu spend more than 10 per cent of their GDP on health. In contrast, some ASEAN members, such as Myanmar, Indonesia and Brunei Darussalam, have the lowest expenditures in terms of GDP in the region. In Myanmar, total health expenditure accounted for just 2.2 per cent of GDP in 2004.

In the Pacific subregion, health expenditure as a percentage of total government spending increased considerably between 2000 and 2004. Nauru recorded the largest increase in the value of this indicator, which reached almost a third in 2004. Tuvalu also recorded a considerable increase, by close to 10 percentage points, while the Solomon Islands and Niue increased the proportion of the government budget spent on health by 7 and 6 percentage points, respectively.

Least developed countries have some of the highest rates of private spending on health as a percentage of total health expenditure. In Myanmar, 87 per cent of total health expenditures is private, similar to the 83 per cent in Afghanistan. In South and South-West Asia, private expenditure as a percentage of all expenditure on health is over 70 per cent in Bangladesh (also a least developed country) and India and 80 per cent in Pakistan.

In most of the Pacific subregion, on the other hand, private spending as a share of total expenditure on health is below 30 per cent, the 38 per cent of Fiji being the only exception. These levels are similar to those attained by the developed economies of Asia and the Pacific, since in Australia private spending on health is 33 per cent, and in both Japan and New Zealand it is less than 30 per cent.

Generally, private expenditure on health is out-of-pocket spending. For more than two thirds of all countries in the Asian and Pacific region, out-of-pocket expenditure exceeds 80 per cent, which carries significant implications for low-income households, particularly in emergencies or in case of chronic diseases.

Out-of-pocket expenditure is below 50 per cent in only four Asian and Pacific countries, namely Papua New Guinea, the Federated States of Micronesia, Timor-Leste and Tuvalu. In the latter country, out-of-pocket expenditure accounts for 17 per cent of total private health expenditure.

Figure 9.1 Proportion of health expenditure in total government expenditure in Asia and the Pacific, 2000 and 2004

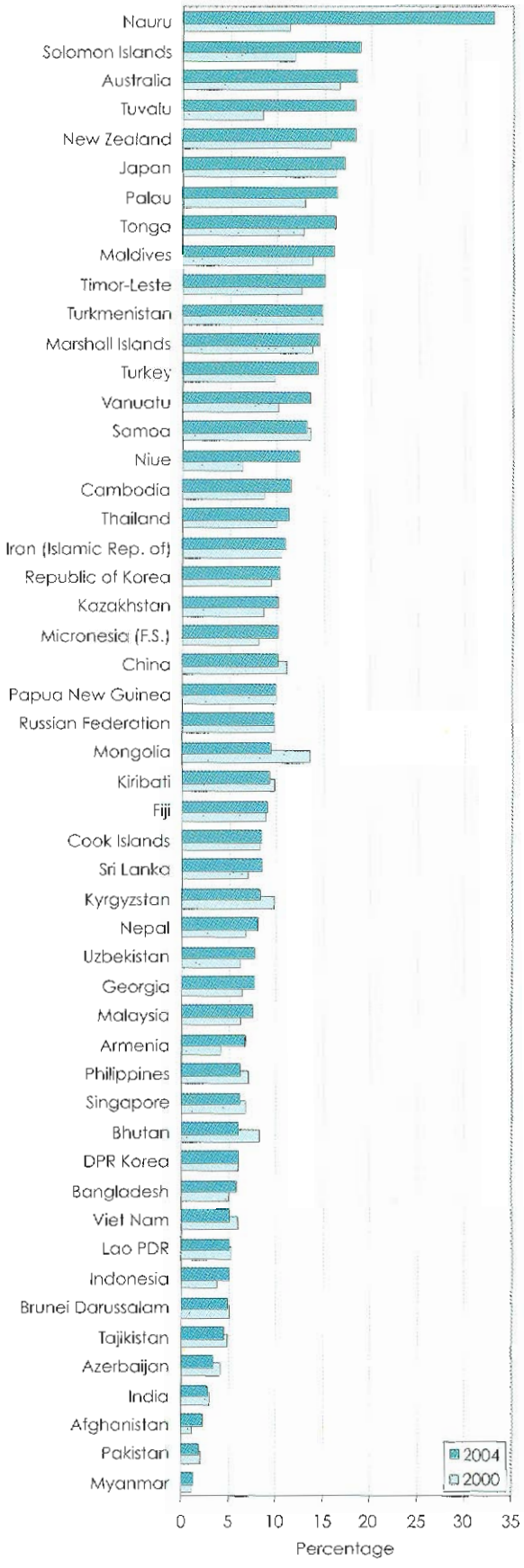


Figure 9.2 Proportion of private health expenditure in total health expenditure in Asia and the Pacific, 2000 and 2004

Total health expenditure (% of GDP): The sum of general government health expenditure and private health expenditure, expressed as a percentage of GDP. *Aggregates:* Averages are calculated using GDP in US dollars as weight. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

General government health expenditure (% of total government expenditure): The expenditure that the general government has incurred on health, expressed as a percentage of the total government expenditure. Comprises the direct outlays ear-marked for the enhancement of the health status of the population and/or the distribution of medical-care goods and services for the population by the following financing agents: central/federal, state/provincial/regional, and local/municipal authorities; extra budgetary agencies, social security schemes; and parastatals. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Number of physicians (per 1,000 population): The number of physicians, generalists and specialists, expressed per 1,000 population. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Private expenditure on health (% of total expenditure on health): The sum of expenditures on health by (i) prepaid plans and risk-pooling arrangements, (ii) private firms, (iii) non-profit institutions serving mainly households, and (iv) households (out-of-pocket spending). Expressed as a percentage of the total expenditure on health. *Source:* World Health Organization, WHO Statistical Information System, (online database, accessed on September 2007).

Out-of-pocket expenditure on health (% of private expenditure on health): The direct outlays of households, including gratuities and in-kind payments made to health practitioners and to suppliers of pharmaceuticals, therapeutic appliances and other medical goods and services. Includes household direct payments to public and private providers of health-care services, non-profit institutions, and non-reimbursable cost-sharing, such as deductibles, copayments and fees for services. Expressed as a percentage of the total private health expenditure. *Aggregates:* Averages are calculated using GDP in US dollars as weight. *Source:* World Health Organization, World Health Organization Statistical Information System, (online database, accessed on September 2007).

9.1 Financial and human resources for health

	Total health expenditure					General government health expenditure					Number of physicians			
	% of GDP					% of total government expenditure					Per 1,000 population			
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	Earliest		Latest	
East and North-East Asia														
China	4.6	4.6	4.8	4.8	4.7	11.1	9.5	9.4	9.7	10.1	1.5	(90)	1.5	(05)
DPR Korea	3.6	3.5	3.5	3.5	3.5	6.0	6.0	6.0	6.0	6.0	3.0	(95)	3.3	(03)
Hong Kong, China											1.2	(93)		
Macao, China														
Mongolia	7.9	8.2	8.0	6.5	6.0	13.6	12.7	13.1	10.2	9.4	2.5	(90)	2.6	(02)
Republic of Korea	4.5	5.4	5.3	5.4	5.5	9.4	11.4	11.0	9.1	10.3	0.8	(90)	1.6	(03)
South-East Asia														
Brunei Darussalam	3.4	3.5	3.5	3.5	3.2	5.1	4.5	4.7	5.2	4.8	0.7	(91)	1.0	(00)
Cambodia	5.9	6.6	7.1	7.3	6.7	8.7	10.6	10.8	10.8	11.4	0.1	(92)	0.2	(00)
Indonesia	2.3	2.7	2.8	2.9	2.8	3.7	4.2	5.3	4.6	5.0	0.1	(90)	0.1	(03)
Lao PDR	3.2	3.3	3.3	4.5	3.9	5.2	5.6	6.0	6.9	5.0	0.2	(90)	0.6	(96)
Malaysia	3.3	3.7	3.7	4.2	3.8	6.2	6.3	6.5	7.9	7.5	0.4	(90)	0.7	(00)
Myanmar	2.1	2.1	2.3	2.2	2.2	1.2	1.1	1.5	1.2	1.4	0.1	(90)	0.4	(04)
Philippines	3.5	3.2	3.0	3.4	3.4	7.1	6.2	5.1	6.1	6.3	0.1	(90)	1.2	(02)
Singapore	3.6	4.3	4.2	4.2	3.7	6.7	7.0	6.6	7.7	6.2	1.3	(90)	1.4	(01)
Thailand	3.4	3.3	3.7	3.5	3.5	10.0	9.0	9.3	11.9	11.2	0.2	(90)	0.4	(00)
Timor-Leste	8.3	7.8	7.8	9.5	11.2	12.7	7.6	7.5	10.9	15.0			0.1	(04)
Viet Nam	5.3	5.5	5.1	5.2	5.5	6.0	6.0	5.1	5.1	5.0	0.4	(90)	0.5	(01)
South and South-West Asia														
Afghanistan	3.3	3.4	3.6	4.4	4.4	1.1	1.1	1.2	1.9	2.3	0.1	(90)	0.2	(01)
Bangladesh	3.1	3.1	3.0	3.1	3.1	5.0	5.6	5.3	6.1	5.9	0.2	(90)	0.3	(04)
Bhutan	5.2	6.3	4.9	4.6	4.6	8.3	11.0	7.6	6.7	6.1	0.3	(90)	0.1	(04)
India	4.3	4.5	4.8	4.9	5.0	3.1	3.0	2.9	2.7	2.9	0.5	(92)	0.6	(04)
Iran (Islamic Rep. of)	5.6	6.0	6.0	6.7	6.6	10.6	10.2	8.8	11.0	10.9	0.3	(93)	0.4	(04)
Maldives	6.8	6.8	6.6	7.2	7.7	13.7	13.8	13.3	14.2	16.0	0.1	(90)	0.9	(04)
Nepal	5.2	5.3	6.0	5.6	5.6	6.7	6.3	9.1	7.2	8.1	0.1	(90)	0.2	(04)
Pakistan	2.4	2.3	2.3	2.1	2.2	2.0	1.9	2.0	1.5	1.9	0.5	(90)	0.7	(04)
Sri Lanka	3.8	3.9	3.9	4.1	4.3	6.9	6.6	6.8	7.2	8.4	0.1	(93)	0.5	(04)
Turkey	6.6	7.5	7.4	7.6	7.7	9.8	10.3	12.6	13.9	14.3	0.9	(90)	1.3	(05)
North and Central Asia														
Armenia	6.3	6.5	5.4	5.6	5.4	4.2	6.2	5.8	5.8	6.8	3.9	(90)	3.6	(03)
Azerbaijan	4.2	4.0	4.1	3.7	3.6	4.2	4.3	2.9	3.0	3.4	3.9	(90)	3.5	(03)
Georgia	4.7	5.2	6.4	5.2	5.3	6.4	7.8	8.9	7.8	7.7	4.9	(90)	4.1	(03)
Kazakhstan	4.0	3.1	3.5	3.6	3.8	8.7	7.2	8.9	8.6	10.2	4.0	(90)	3.5	(03)
Kyrgyzstan	5.0	5.1	5.7	5.7	5.6	9.7	10.3	9.8	9.8	8.3	3.4	(90)	2.5	(04)
Russian Federation	5.7	5.9	6.4	6.3	6.0	9.8	9.3	9.7	10.0	9.8	4.1	(90)	4.3	(03)
Tajikistan	4.1	4.2	4.2	4.5	4.4	4.9	5.3	4.8	4.8	4.6	2.6	(90)	2.0	(03)
Turkmenistan	4.8	4.5	4.0	4.4	4.8	14.9	14.9	14.9	14.9	14.9	3.6	(90)	4.2	(02)
Uzbekistan	5.8	5.7	5.6	5.6	5.1	6.3	6.7	6.5	8.1	7.8	3.4	(90)	2.7	(03)
Pacific														
American Samoa													0.8	(99)
Cook Islands	4.0	3.8	3.6	3.7	3.5	8.2	8.6	8.6	9.6	8.4				
Fiji	4.2	4.1	4.7	4.6	4.6	8.8	8.8	9.0	9.0	9.1	0.5	(92)	0.3	(99)
French Polynesia													1.7	(00)
Guam													1.1	(99)
Kiribati	11.6	12.3	12.6	13.7	13.7	9.8	8.1	8.6	7.9	9.3	0.2	(90)	0.3	(98)
Marshall Islands	14.5	12.5	12.3	14.0	15.2	13.7	12.1	11.5	14.4	14.5			0.5	(00)
Micronesia (F.S.)	7.0	7.2	6.9	7.6	7.6	8.0	8.5	9.0	9.5	10.2	0.5	(93)	0.6	(00)
Nauru	9.1	8.9	8.6	8.2	8.1	11.2	14.0	18.2	23.8	32.9				
New Caledonia													2.0	(99)
Niue	8.0	38.1	11.1	12.5	15.1	6.4	30.6	9.6	13.0	12.4				
Northern Mariana Is.													0.4	(99)
Palau	9.9	9.4	9.4	10.6	9.7	13.0	12.6	13.9	16.2	16.4			1.1	(98)
Papua New Guinea	3.6	4.0	3.8	3.4	3.6	9.9	11.0	11.4	10.9	10.0	0.1	(90)	0.1	(00)
Samoa	6.2	5.8	5.7	5.4	5.3	13.6	13.1	12.8	13.1	13.1	0.4	(92)	0.7	(99)
Solomon Islands	5.4	5.7	5.1	5.2	5.9	11.8	12.0	12.6	13.2	18.8	0.2	(92)	0.1	(99)
Tonga	6.3	7.3	6.2	6.7	6.3	12.8	11.9	17.1	21.1	16.1	0.5	(91)	0.3	(01)
Tuvalu	18.8	19.1	41.1	28.6	16.6	8.5	8.6	40.5	37.2	18.3				
Vanuatu	4.0	4.0	4.3	4.1	4.1	10.1	11.1	11.9	13.0	13.6	0.1	(91)	0.1	(97)
ESCAP Developed Economies														
Australia	8.8	8.9	9.1	9.2	9.6	16.5	16.8	17.6	17.7	18.5	2.2	(90)	2.5	(02)
Japan	7.6	7.8	7.9	7.7	7.8	16.1	17.0	16.8	16.5	17.2	1.7	(90)	2.0	(02)
New Zealand	7.7	7.8	8.2	8.0	8.4	15.6	16.1	17.3	17.1	18.2	1.9	(90)	2.2	(03)
ESCAP	6.4	6.5	6.5	6.5	6.5									
LLDC	4.7	4.3	4.4	4.4	4.3									
LDC	3.4	3.5	3.5	3.6	3.6									
SIDS	3.7	4.4	4.3	4.3	3.8									
ASEAN	3.2	3.5	3.5	3.6	3.5									
SAARC	4.0	4.1	4.4	4.4	4.6									
Central Asia	4.9	4.5	4.6	4.5	4.4									
Low-income	4.0	3.9	4.0	4.0	3.9									
Middle-income	5.3	5.9	5.1	5.1	5.0									
High-income	7.3	7.6	7.7	7.5	7.7									
Africa	5.4	5.8	5.7	5.8	5.8									
Latin America & Carib.	6.9	7.0	6.9	7.1	7.3									
North America	13.0	13.7	14.4	14.8	15.0									
Europe	8.6	8.7	9.0	9.2	9.2									
Other Asia-Pacific														
World														

9.2 Private expenditure on health

	Private expenditure on health					Out-of-pocket expenditure on health				
	% of total expenditure on health					% of private expenditure on health				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
East and North-East Asia										
China	62	64	64	64	62	96	93	90	88	87
DPR Korea	14	14	15	14	14	100	100	100	100	100
Hong Kong, China										
Macao, China										
Mongolia	25	29	33	35	33	89	78	87	92	92
Republic of Korea	50	47	48	48	47	79	81	82	80	80
South-East Asia										
Brunei Darussalam	17	23	22	20	20	100	100	100	100	100
Cambodia	78	73	72	75	74	93	86	86	77	85
Indonesia	74	67	66	68	66	72	75	75	76	75
Lao PDR	67	66	67	70	80	92	91	90	93	90
Malaysia	48	44	45	38	41	75	74	74	74	74
Myanmar	87	88	86	89	87	99	99	99	99	99
Philippines	52	56	60	59	60	77	79	78	79	78
Singapore	65	64	68	62	66	97	97	97	97	97
Thailand	44	44	37	36	35	77	76	75	75	75
Timor-Leste	25	28	27	24	21	31	26	26	26	26
Viet Nam	72	71	72	71	73	87	90	88	87	88
South and South-West Asia										
Afghanistan	99	99	92	89	83	99	97	97	98	98
Bangladesh	75	74	75	72	72	88	88	88	88	88
Bhutan	29	25	34	36	36	100	100	100	100	100
India	79	81	82	83	83	92	93	93	94	94
Iran (Islamic Rep. of)	59	59	60	51	52	95	95	95	95	95
Maldives	24	23	24	21	19	100	100	100	100	100
Nepal	78	77	71	76	74	91	91	89	90	88
Pakistan	78	79	74	82	80	98	98	98	98	98
Sri Lanka	52	55	57	59	54	82	81	82	81	84
Turkey	37	32	30	28	28	75	73	71	70	69
North and Central Asia										
Armenia	83	78	76	77	74	93	82	89	90	89
Azerbaijan	79	78	81	77	75	93	93	94	94	94
Georgia	74	73	76	73	73	90	80	81	85	87
Kazakhstan	51	47	47	46	40	100	100	100	100	100
Kyrgyzstan	52	55	58	59	59	89	91	91	93	94
Russian Federation	38	40	38	38	39	74	73	75	76	77
Tajikistan	77	77	78	80	78	98	98	98	98	97
Turkmenistan	26	28	32	30	31	100	100	100	100	100
Uzbekistan	55	55	55	53	53	97	97	97	96	96
Pacific										
American Samoa										
Cook Islands	12	12	13	12	13	100	100	100	100	100
Fiji	33	31	36	36	38	100	100	100	100	100
French Polynesia										
Guam										
Kiribati	8	8	8	7	7	100	100	100	100	100
Marshall Islands	3	4	4	3	3	100	100	100	100	100
Micronesia (F.S.)	15	14	15	14	14	42	42	41	40	40
Nauru	9	10	10	16	27	100	100	100	100	100
New Caledonia										
Niue	2	0	1	1	1	100	100	100	100	100
Northern Mariana Is.										
Palau	11	11	12	12	9	100	100	100	100	100
Papua New Guinea	18	18	16	16	16	57	52	52	51	46
Samoa	27	25	23	21	23	78	81	73	78	78
Solomon Islands	6	6	6	6	6	56	56	56	56	56
Tonga	25	24	26	20	21	82	78	76	84	85
Tuvalu	5	6	3	4	5	12	12	13	16	17
Vanuatu	23	22	22	23	23	56	56	56	58	58
ESCAP Developed Economies										
Australia	32	33	33	33	33	64	62	62	61	62
Japan	19	18	19	19	19	90	90	93	94	95
New Zealand	22	24	22	22	23	70	72	73	72	76
ESCAP						87	87	88	87	87
LLDC						97	96	97	97	97
LDC						90	89	89	89	90
SIDS						95	95	95	94	94
ASEAN						80	80	80	80	79
SAARC						92	93	93	93	94
Central Asia						97	96	97	97	97
Low-income						92	93	93	93	93
Middle-income						87	86	84	82	82
High-income						87	87	89	89	89
Africa						73	73	74	70	68
Latin America & Carib.						75	76	78	76	75
North America						28	27	27	26	26
Europe						57	56	56	57	58
Other Asia-Pacific										
World										

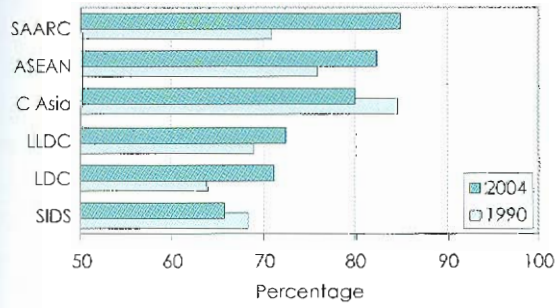
10. Access to water and sanitation

Every year, millions of children miss out on school because they have to fetch water over long distances. Moreover, nearly a fifth of the world's child deaths are related to a lack of access to proper water and sanitation facilities (UNDP, 2006).

Access to improved drinking water sources has increased in Asia and the Pacific, from 75 per cent in 1990 to 83 per cent in 2004. Latin America and the Caribbean has the highest access rate among the developing regions of the world, 91 per cent, and Africa has the lowest, 61 per cent. All of the North American population has access to improved water sources, but in Europe this is only so for 80 per cent of the population.

Among Asian and Pacific country groupings, over 80 per cent of the populations of SAARC, ASEAN and Central Asian countries have access to improved water sources. The least developed countries and landlocked developing countries have access rates of just above 70 per cent, while the small island developing States lag behind, with only 66 per cent of the population with access to improved water sources.

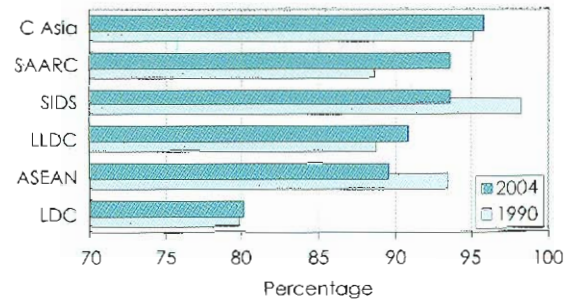
Figure 10.1 Proportion of total population with access to improved water sources for selected Asian and Pacific country/area groupings, 1990 and 2004



In North America and Europe, the urban populations have complete access to improved water sources; in Latin America and the Caribbean, access is close to complete. Asia and the Pacific, with a rate of 94 per cent, falls short of full access and has, in fact, regressed slightly since 1990, when 95 per cent of its population had access to improved sources of water.

Access to safe water in urban Asia and the Pacific is not uniform. The proportion of the urban population with access in the Central Asian countries and SAARC countries increased from 89 per cent in 1990 to 94 per cent in 2004, while in ASEAN countries and small island developing States, it decreased by 4 percentage points over the same period.

Figure 10.2 Proportion of urban population with access to improved water sources for selected Asian and Pacific country/area groupings, 1990 and 2004



Urbanization and the increase in the number of people living in slums are largely responsible for this phenomenon. Countries with high access rates in the 1990s, such as China, Indonesia and the Philippines, have all recorded a fall in the proportion of the urban population with access to improved sources of water.

Increased urbanization has pushed access rates down in increasingly industrialized middle-income countries, while low-income countries have made significant progress in absolute but not relative terms. Afghanistan has increased the proportion of the population living in cities with access to water six-fold since 1990, to 63 per cent.

Access to improved sources of water in rural areas, on the other hand, has steadily improved in the Asian and Pacific region. Between 1990 and 2004, access in the region increased by 11 percentage points, to 76 per cent. Latin America and the Caribbean experienced the highest percentage point increase among world regions, by 13 percentage points. Despite this increase, it still has a lower rural access rate than Asia and the Pacific, at 73 per cent.

Within Asia and the Pacific, not only do SAARC countries have the highest level of access to water in rural areas, but they have also recorded the largest increase in coverage, by 16 percentage points. Currently, access in rural areas of SAARC countries is 81 per cent, compared with 77 per cent in ASEAN countries.

Central Asia is the only subregion in Asia and the Pacific with a declining trend in rural access to improved water sources, its rate having fallen from 77 to 68 per cent between 1990 and 2004. Access

Figure 10.3 The 20 Asian and Pacific countries/areas with the lowest access to improved water sources in urban areas, 1990 and 2004

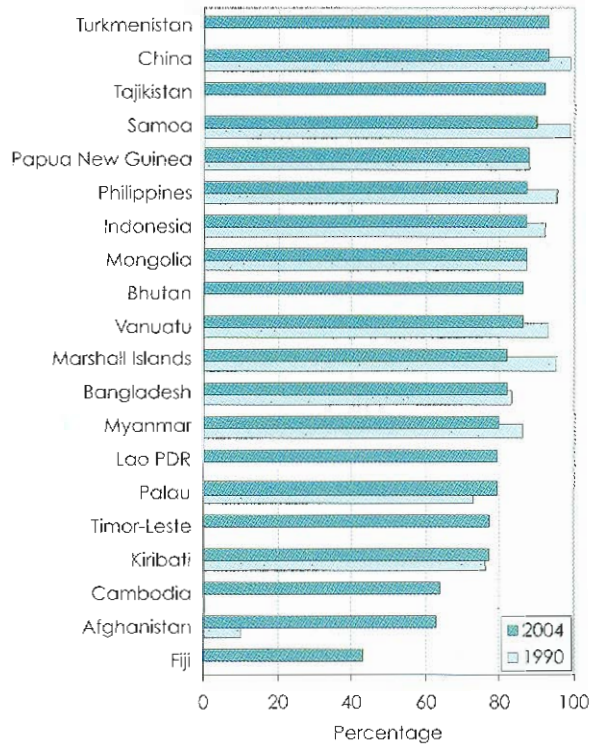
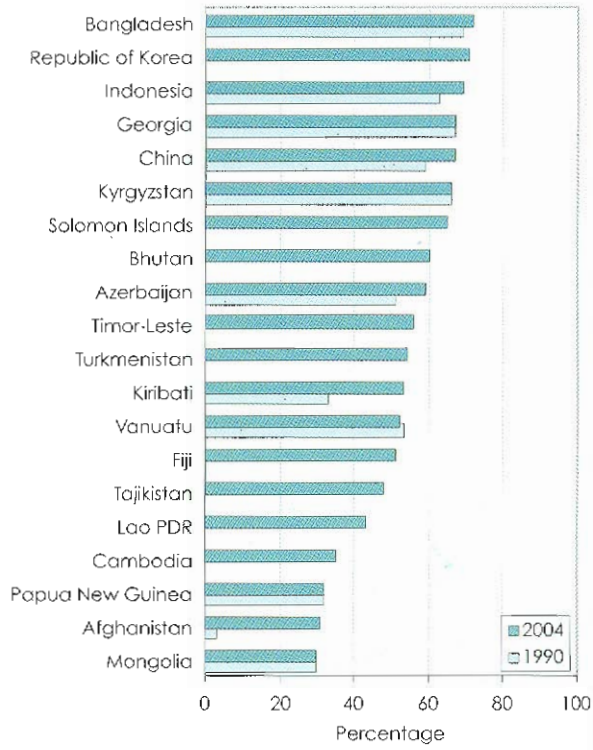


Figure 10.4 The 20 Asian and Pacific countries/areas with the lowest access to improved water sources in rural areas, 1990 and 2004



in small island developing States in the latter year, however, was at 42 per cent, lower than that of Africa, at 48 per cent. Five of the 20 countries with the lowest rural water access rates in Asia and the Pacific are small island developing States.

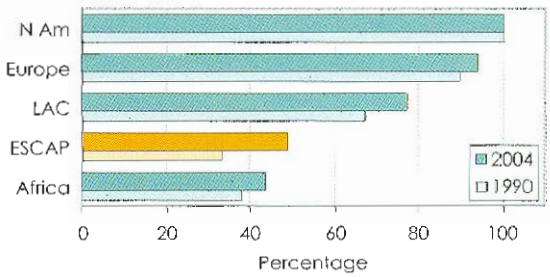
Even though ASEAN countries have the second highest access in rural areas, Cambodia and the Lao People's Democratic Republic still rank among the bottom five countries in the Asian and Pacific region, with access of about 40 per cent.

The rapid progress in the region with regard to increasing access to water in rural areas has come hand in hand with an impressive increase in access to sanitation facilities. The importance of improved sanitation facilities is vital for a healthy life. According to some estimates, improving sanitation can lead to a 30 per cent reduction in child mortality (UNDP, 2006).

Improved sanitation facilities include household toilets or latrines connected to piped sewerage systems and also septic tanks and ventilated improved pit latrines. People without these facilities usually defecate in fields or dispose of faeces in plastic bags, bucket latrines or rivers. The access rate discrepancy between rural and urban areas is thus higher in comparison with access to improved water sources.

The proportion of the total population with access to improved sanitation has increased in all regions between 1990 and 2004, except for North America, which has had universal access throughout this period. Between 1990 and 2004, the Asian and Pacific region augmented total access by 15 percentage points, which is the highest increase among all developing regions. Half the population of Asia and the Pacific has access to improved sanitation, which is higher than the 44 per cent of Africa, but lower than the 77 per cent of Latin America and the Caribbean.

Figure 10.5 Access to improved sanitation facilities in regions of the world, 1990 and 2004

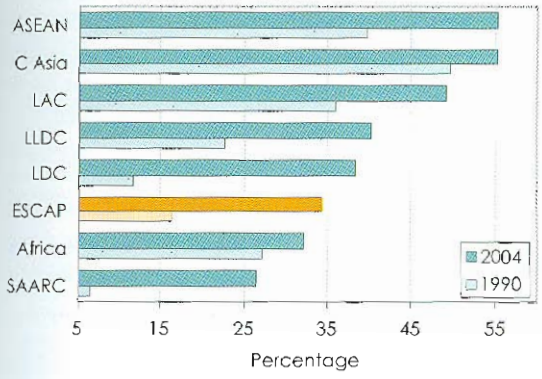


The Asian and Pacific region has more than doubled the proportion of the rural population with access to improved sanitation facilities, from 16 to 34 per cent, between 1990 and 2004. It nevertheless remains close to that of Africa, at 32 per cent, the lowest coverage in the world. Latin America and

the Caribbean records higher access, at 49 per cent. The proportions of the urban population with access to improved sanitation in these three regions are 62 per cent in Africa, 74 per cent in Asia and the Pacific and 86 per cent in Latin America and the Caribbean.

SAARC countries, at 27 per cent, lag behind Africa despite a significant increase in rural coverage. Central Asian and ASEAN countries are the most advanced country groupings in this regard, with 55 per cent of the rural populations having access to improved sanitation.

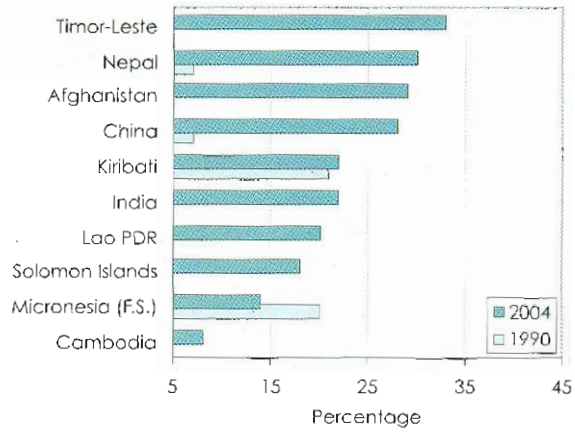
Figure 10.6 Access to improved sanitation in rural areas of selected Asian and Pacific country/area groupings, Latin America and Africa, 1990 and 2004



For countries with trend data available that are situated at the bottom of the access rankings, the increase in access to improved facilities has been quite significant. Afghanistan, Bangladesh, India and Nepal have more than doubled the proportion of the rural population's access to improved sanitation facilities, considerably moving the SAARC average up. China has steadily increased access to improved sanitation facilities in rural areas, although it is still only 28 per cent. Access in rural Cambodia remain very low, only 8 per cent, and there is no trend data.

In terms of access to improved sanitation facilities in urban areas, the Asian and Pacific region has also made slow progress except for SAARC countries, which increased coverage from 50 per cent in 1990 to 63 in 2004. The small island developing States, despite a declining trend, have the highest proportion of the urban population with access to improved sanitation, at 93 per cent.

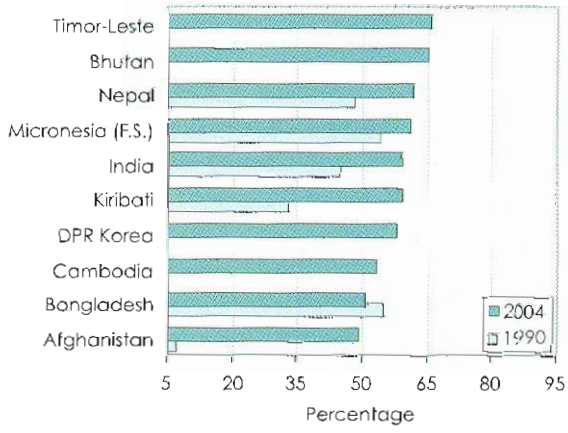
Figure 10.7 The 10 Asian and Pacific countries/areas with the lowest access to improved sanitation facilities in rural areas, 1990 and 2004



ASEAN and Central Asian countries follow the small island developing States with 81 per cent coverage in urban areas.

As in the case of rural coverage, improved access to sanitation in the urban areas of Afghanistan, India and Nepal have moved the SAARC average upwards. Bangladesh, on the other hand, has experienced a setback, with a fall from 55 per cent in 1990 to 51 per cent in 2004. With this figure, Bangladesh has the lowest proportion of urban population with access to improved sanitation in Asia and the Pacific. Cambodia, with 53 per cent, has slightly better urban access than Bangladesh. The Democratic People's Republic of Korea provides 58 per cent of its urban population with access to improved sanitation, while India and Kiribati have a comparable level of urban coverage, at 59 per cent.

Figure 10.8 The 10 Asian and Pacific countries/areas with the lowest access to improved sanitation facilities in urban areas, 1990 and 2004



Rural population with access to improved water sources (percentage): The proportion of the population in rural areas having access to improved drinking water sources (including household water connection, public standpipe, borehole, protected dug well, protected spring, rainwater collection and bottled water — if an available secondary source is also improved). Expressed as a percentage of the total rural population. *Aggregates:* Averages are calculated using the rural population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Urban population with access to improved water sources (percentage): The proportion of population in urban areas having access to improved drinking water sources (including household water connection, public standpipe, borehole, protected dug well, protected spring, rainwater collection and bottled water — if a secondary available source is also improved). Expressed as a percentage of total urban population. *Aggregates:* Averages are calculated using the urban population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Total population with access to improved water sources (percentage): The proportion of the total population having access to improved drinking water sources, which include household water connection, public stand pipe, borehole, protected dug well, protected spring, rainwater collection and bottled water. Expressed as a percentage of the total population. *Aggregates:* Averages are calculated using the total population as weight. *Source:* Calculated by ESCAP using data from United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Rural population with access to improved sanitation (percentage): The proportion of population in rural areas using improved sanitation facilities, which include flush to piped sewer system, flush to septic tank, flush and pour flush to pit, and flush and pour flush to elsewhere. Expressed as a percentage of the total rural population. *Aggregates:* Averages are calculated using the rural population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Urban population with access to improved sanitation (percentage): The proportion of population in urban areas using improved sanitation facilities, which include flush to piped sewer system, flush to septic tank, flush and pour flush to pit, and flush and pour flush to elsewhere. Expressed as a percentage of the total urban population. *Aggregates:* Averages are calculated using the urban population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Total population with access to improved sanitation (percentage): The proportion of total population using improved sanitation facilities, which include flush to piped sewer system, flush to septic tank, flush and pour flush to pit, and flush and pour flush to elsewhere. Expressed as a percentage of the total population. *Aggregates:* Averages are calculated using the total population as weight. *Source:* Calculated by ESCAP using data from United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

10.1 Access to water and sanitation

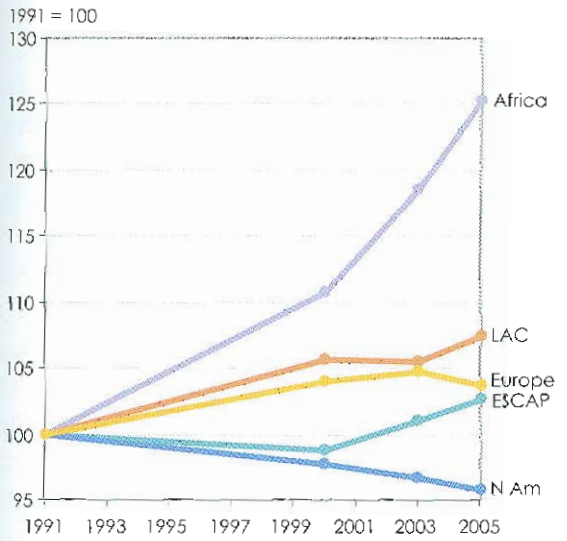
	Population with access to improved water sources						Population with access to improved sanitation					
	Rural		Urban		Total		Rural		Urban		Total	
	Percentage											
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
East and North-East Asia												
China	59	67	99	93	70	77	7	28	64	69	23	44
DPR Korea	100	100	100	100	100	100		60		58		59
Hong Kong, China												
Macao, China												
Mongolia	30	30	87	87	63	62		37		75		59
Republic of Korea		71	97	97	72	92						
South-East Asia												
Brunei Darussalam												
Cambodia		35		64		41		8		53		17
Indonesia	63	69	92	87	72	77	37	40	65	73	46	55
Lao PDR		43		79		50		20		67		30
Malaysia	96	96	100	100	98	99		93	95	95	47	94
Myanmar	47	77	86	80	57	78	16	72	48	88	24	77
Philippines	80	82	95	87	87	85	48	59	66	80	57	72
Singapore			100	100	100	100			100	100	100	100
Thailand	94	100	98	98	95	99	74	99	95	98	80	99
Timor-Leste		56		77		61		33		66		42
Viet Nam	59	80	90	99	65	85	30	50	58	92	36	61
South and South-West Asia												
Afghanistan	3	31	10	63	4	38	2	29	7	49	3	34
Bangladesh	69	72	83	82	72	74	12	35	55	51	21	39
Bhutan		60		86		63		70		65		69
India	64	83	89	95	70	86	3	22	45	59	14	33
Iran (Islamic Rep. of)	84	84	99	99	92	94	78		86		83	
Maldives	95	76	100	98	96	82		42	100	100	26	59
Nepal	67	89	95	96	69	90	7	30	48	62	11	35
Pakistan	78	89	95	96	83	91	17	41	82	92	37	59
Sri Lanka	62	74	91	98	67	78	64	89	89	98	68	90
Turkey	74	93	92	98	85	96	70	72	96	96	85	88
North and Central Asia												
Armenia		80	99	99	67	92		61	96	96	65	83
Azerbaijan	51	59	82	95	68	78		36		73		55
Georgia	67	67	91	96	80	82	94	91	99	96	97	94
Kazakhstan	73	73	97	97	87	87	52	52	87	87	72	72
Kyrgyzstan	66	66	98	98	78	77	51	51	75	75	60	60
Russian Federation	86	88	97	100	94	97	70	70	93	93	87	87
Tajikistan		48		92		59		45		70		51
Turkmenistan		54		93		72		50		77		62
Uzbekistan	91	75	99	95	94	82	39	61	69	78	51	67
Pacific												
American Samoa												
Cook Islands	87	88	99	98			91	100	100	100		
Fiji		51		43		47	55	55	87	87	68	71
French Polynesia	100	100	100	100	100	100	97	99	99	97	98	98
Guam	100	100	100	100	100	100	98	99	99	98	99	98
Kiribati	33	53	76	77			21	22	33	59		
Marshall Islands	97	96	95	82			51	58	88	93		
Micronesia (F.S.)	86	94	93	95	88	94	20	14	54	61	29	24
Nauru												
New Caledonia												
Niue	100	100	100	100			100	100	100	100		
Northern Mariana Is.	100	97	98	98			78	94	85	96		
Palau	98	94	73	79			54	52	76	96		
Papua New Guinea	32	32	88	88	39	39	41	41	67	67	44	44
Samoa	89	87	99	90	91	88	98	100	100	100	98	100
Solomon Islands		65		94		70		18	98	98	13	31
Tonga	100	100	100	100	100	100	96	96	98	98	96	96
Tuvalu	89	92	92	94			74	84	83	93		
Vanuatu	53	52	93	86	60	60		42		78		50
ESCAP Developed Economies												
Australia	100	100	100	100	100	100	100	100	100	100	100	100
Japan	100	100	100	100	100	100	100	100	100	100	100	100
New Zealand	82		100	100	97	86	88					
ESCAP	65	76	95	94	75	83	16	34	70	74	34	49
LLDC	59	63	89	91	69	72	23	40	71	74	39	51
LDC	60	68	80	80	64	71	12	38	50	60	19	44
SIDS		42	98	94	68	66		42	95	93	67	65
ASEAN	68	77	93	89	76	82	40	55	70	81	48	66
SAARC	65	81	89	94	71	85	6	27	50	63	17	37
Central Asia	77	68	95	96	84	80	50	55	83	81	65	67
Low-income	65	80	89	93	71	84	8	29	51	65	19	39
Middle-income	63	71	97	94	75	81	20	37	74	76	39	53
High-income	100	95	99	99	94	98	100	100	100	100	98	97
Africa	43	48	86	84	56	61	27	32	62	62	38	44
Latin America & Carib.	60	73	93	96	82	91	36	49	81	86	67	77
North America	100	100	100	100	100	100	100	100	100	100	100	100
Europe		91	100	100	89	80						
Other Asia-Pacific	66		96	96	84	82			97	96	73	65
World		73		95		83		39		80		59

11. School enrolment

Asia and the Pacific is making decent progress towards achieving universal primary education.

The average net enrolment ratio for primary education increased from 91 per cent in 1991 to 94 per cent in 2005 in the Asian and Pacific region. Starting from much lower initial (i.e. 1991) levels, primary enrolment grew much more rapidly in Africa, but this region is still almost 20 percentage points behind Asia and the Pacific. While Latin America and the Caribbean was 3 percentage points behind Asia and the Pacific, it had moved to 1 percentage point ahead of the latter by 2005.

Figure 11.1 Index of change in primary net enrolment ratios in the regions of the world, 1991-2005

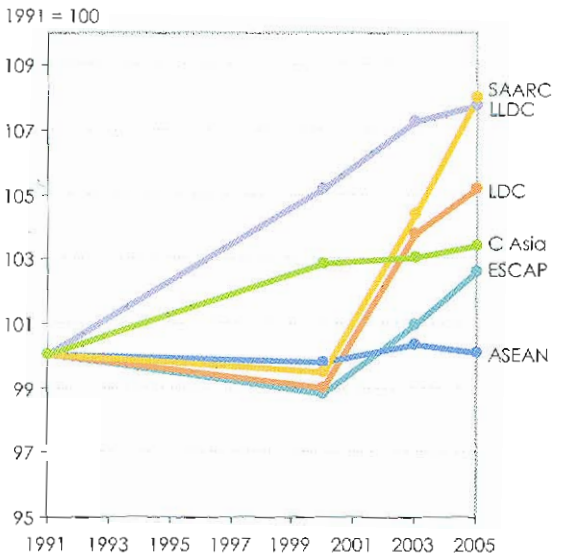


Starting furthest behind, with 79 per cent in 1991, landlocked developing countries are still the countries in Asia and the Pacific with the highest proportions of children out of school, although the net primary enrolment rate had increased to 85 per cent by 2005. During the same period, this rate also increased by 6 percentage points, to 92 per cent, in SAARC countries.

The SAARC average is pulled down by Pakistan, the only country in all of Asia and the Pacific with a net primary enrolment rate of 70 per cent in 2005. This was 12 percentage points lower than that of Maldives, which, at 80 per cent, had the second lowest rate in Asia and the Pacific. However, whereas Pakistan is rapidly reducing the proportion of children out of primary school — the net enrolment rate was just 60 per cent in 2003 — the rate in Maldives actually dropped 18 percentage points between 1999 and 2005.

Universal primary education can only be achieved, of course, if both girls and boys go to

Figure 11.2 Index of change in primary net enrolment ratios of selected country grouping in Asia and the Pacific, 1991-2005



school. In that regard, net enrolment figures in SAARC countries have improved mainly because fewer girls have been out of school in recent years than in the early 1990s. In 1991, only 45 per cent of all pupils enrolled in primary schools in SAARC countries were girls, compared with 48 per cent in 2005.

Among these countries, the primary school attendance of girls particularly improved in India and Nepal. The ratio of girls per 100 boys at this level in India increased from 76 in 1991 to 93 by 2005, and in Nepal from 63 in 1991, one of the lowest ratios in the region, to 91 in 2005. That SAARC countries on average are still well behind other groups, such as the ASEAN countries, and Asia and the Pacific as a whole, both with 96 girls per 100 boys enrolled in primary education in 2005, is due to Pakistan and Afghanistan, the only two countries in the region with less than 80 girls for every 100 boys enrolled in primary school education in that year.

Other countries that contributed considerably to the improvement of the Asian and Pacific ratio, from 88 in 1991 to nearly 96 in 2005, are China and the Islamic Republic of Iran. In China, 93 girls per 100 boys went to primary school in 1991, compared with 100 in 2004; in the Islamic Republic of Iran, this ratio went up from 90 in 1991 to a high 122, in 2005.

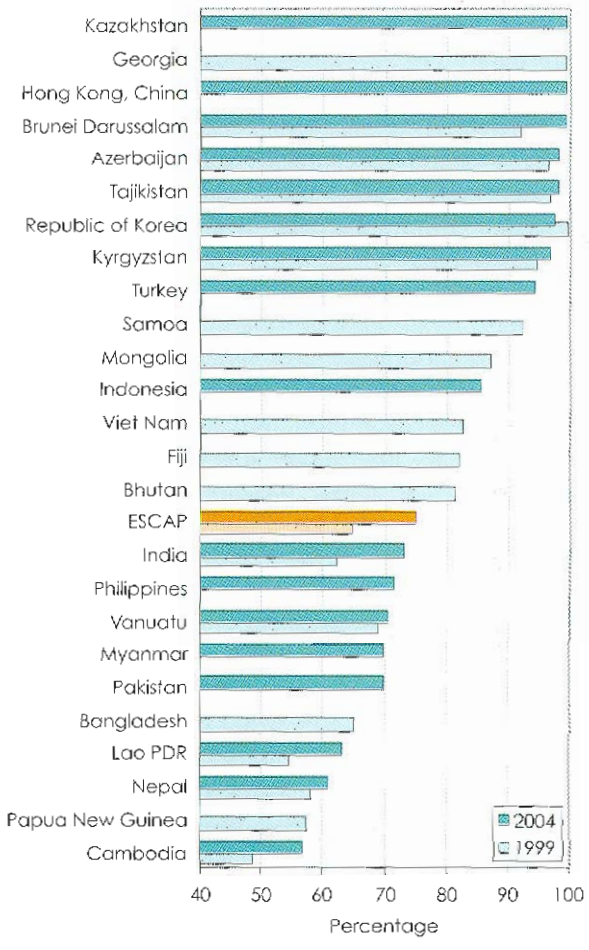
A high enrolment ratio does not guarantee, however, that children enrolled will actually attend school or that they will graduate. Absenteeism and high drop-out rates are still significant obstacles for

some countries in Asia and the Pacific, particularly the least developed countries, in their efforts to achieve universal primary education.

In the Lao People's Democratic Republic and Nepal, only three in five children, or 60 per cent, who started grade 1 reach grade 5 by 2004. In Cambodia, the figure was even smaller — 57 per cent.

Children leave school prematurely for a variety of reasons. These include the costs of schooling, the need to supplement family incomes through child labour, unsuitably school environments in particular for girls, long distances to school, and the language of instruction being different from the one spoken at home. Another important factor is the educational background of mothers; UNESCO estimates that children whose mothers have no education are twice as likely not to be enrolled as those whose mothers have some education.

Figure 11.3 Proportion of children reaching grade 5 in Asia and the Pacific, 1999 and 2004



Higher primary enrolment in the region has translated into higher demand for secondary education. However, the same factors that make some children leave primary school early — especially family needs for child labour — also limit enrolment at the secondary and tertiary levels.

Differences between countries and country groups in secondary and tertiary enrolment levels in Asia and the Pacific are far wider than for primary education. In the Lao People's Democratic Republic, Myanmar and Vanuatu, less than 40 per cent of secondary school-aged children were enrolled in 2004. In Cambodia, less than 3 in every 10 children in this age cohort attend secondary school. This contrasts sharply with the secondary enrolment rates registered in North and Central Asia, where such countries as Armenia and Kazakhstan have enrolment rates of 89 and 92 per cent, respectively, which are similar to the levels in Europe. Such levels can only be achieved with relatively high numbers of girls attending secondary school, which these countries indeed have (and already had during the early 1990s).

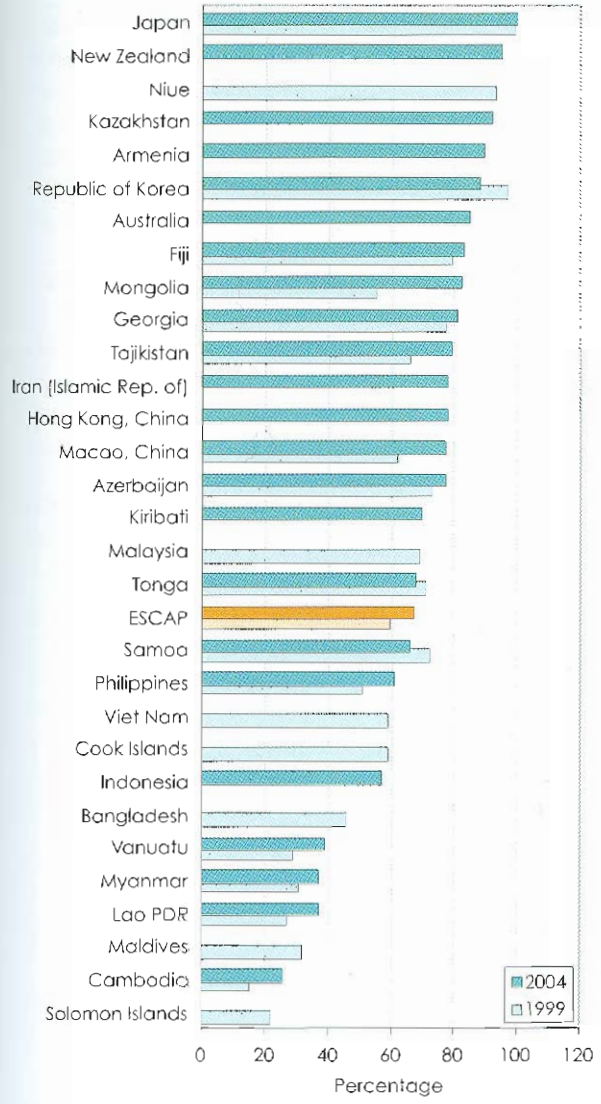
Changes in secondary enrolment ratios are particularly striking in East and North-East Asia. Mongolia experienced the largest increase, from a net secondary enrolment rate of 55 per cent in 1999 to 82 in 2004. Macao, China, registered a 15 percentage points increase, reaching a high secondary enrolment ratio of 77 per cent. Interestingly, the Republic of Korea registered a decrease from 97 in 1999 to 90 by 2005.

Data on net secondary enrolment in South and South-West Asia are largely lacking. The data on the number of girls relative to boys at this level are available, but they do not paint a rosy picture. With the exception of Bangladesh, the Islamic Republic of Iran and Maldives, less than 90 girls attend secondary school for every 100 boys in the countries of this subregion. The girl to boy ratio in most of these countries improved, however, after the early 1990s, with the notable exception of Afghanistan, where the already extremely low ratio of 51 girls for every 100 boys in 1991 dropped to just 33 in 2005.

The relatively low enrolment of girls at the secondary level in South and South-West Asia is largely responsible for the low girl to boy ratio, 92 per 100 in 2005, in Asia and the Pacific compared with other parts of the world, with the exception of Africa.

The pattern of disparities between countries and country groups at the tertiary education level is similar to that at the secondary level, with enrolment ratios at the former level being lower. Tertiary enrolment — in contrast to primary and secondary enrolment — is measured gross, i.e. regardless of age, as a percentage of the population in the official age group corresponding to the

Figure 11.4 Secondary enrolment ratios in Asia and the Pacific, 1999 and 2004



tertiary level. Hence, a higher level does not necessarily mean higher attendance, for it can also increase due to high repetition levels or higher enrolment of adolescents in other age cohorts.

Asia and the Pacific had an average gross tertiary enrolment ratio of close to 20 per cent in 2004. While enrolment at this level has increased over the last couple of years, it is still far below that of North America, at 80 per cent, and Europe, at about 60 per cent. High-income economies in Asia and the Pacific have an average gross tertiary enrolment ratio of 65 per cent, while the ratio for middle-income economies is less than half that, at 25 per cent, and in low-income economies only 10 per cent.

Central Asia, at 26 per cent, has a higher gross tertiary enrolment ratio than the 20 per cent of the ASEAN region and the 10 per cent of the SAARC region; the latter ratio is close to that of Africa. These disparities between groups of countries are replicated at the individual country level. Least developed countries such as Afghanistan, Cambodia and Vanuatu have a tertiary enrolment ratio of 5 per cent or less. This is in sharp contrast with the 60 to 90 per cent of Australia, New Zealand, the Republic of Korea and the Russian Federation.

Countries catching up with these high enrolment ratios include China and Mongolia, where the gross tertiary enrolment rate increased by 13 percentage points between 1999 and 2004. The indicator value in Kazakhstan moved upwards by 23 percentage points during the same period. The largest increase, however, took place in Macao, China, where the gross tertiary enrolment ratio rose from 27 per cent in 1999 to 69 in 2004.

The number of girls per 100 boys at the tertiary education level in Asia and the Pacific on average was just 82 in 2005, much lower than the recent 120-plus in Latin America and the Caribbean, North America and Europe, but impressively better than the 59 registered for Asia and the Pacific in 1991. Countries with particularly low ratios, of 70 per 100 or less, include most SAARC members, but also Cambodia, Tajikistan, Vanuatu and, surprisingly, the Republic of Korea.

Figure 11.5 The 20 Asian and Pacific countries/areas with the lowest ratio of girls to boys in primary education, 1991 and 2005

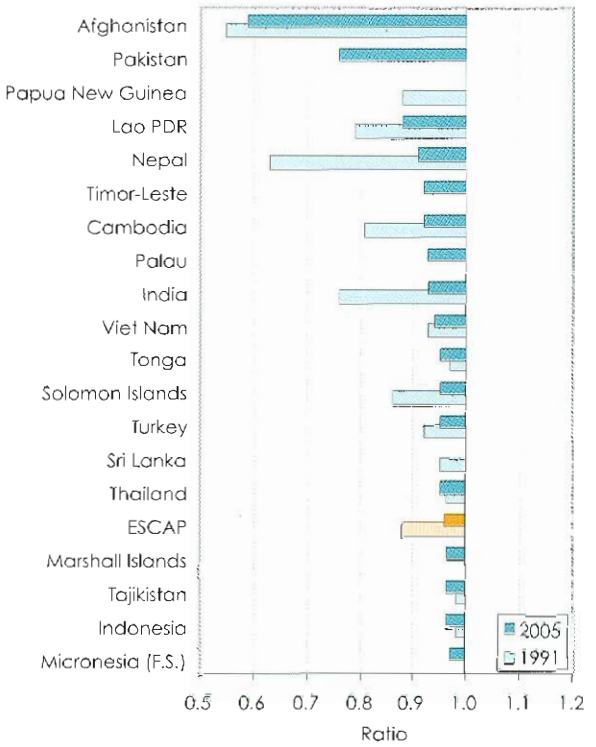


Figure 11.6 Ratio of girls to boys in tertiary education in Asia and the Pacific, 1991 and 2005

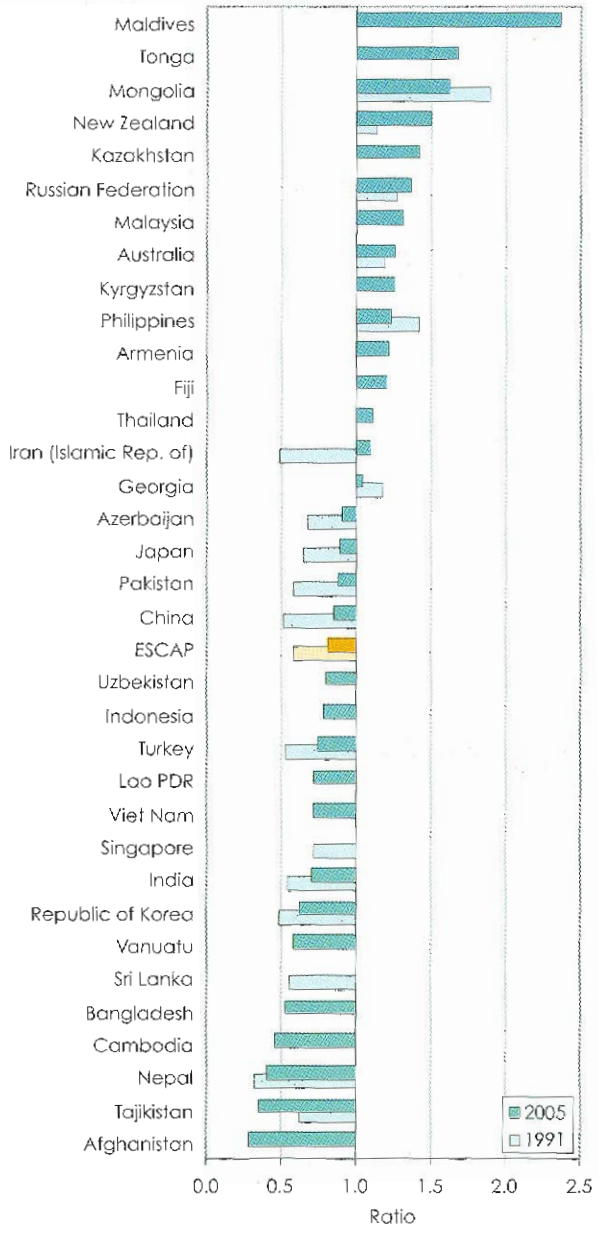
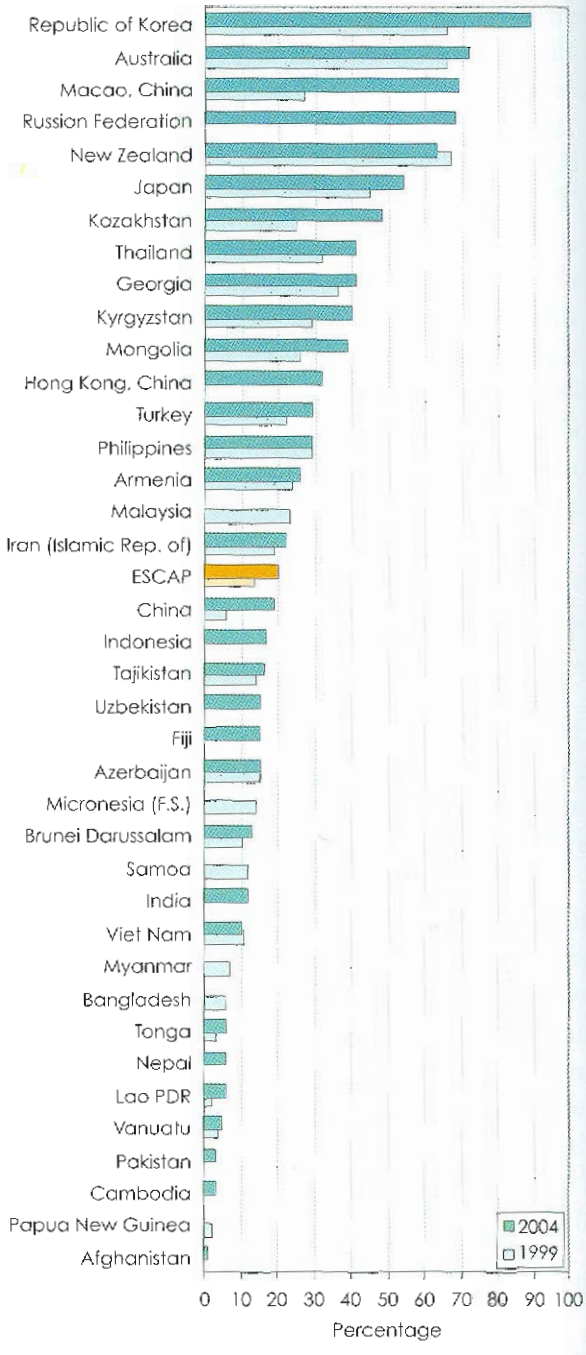


Figure 11.7 Tertiary enrolment ratio in Asia and the Pacific, 1999 and 2004



Net primary enrolment ratio (percentage of primary school-aged children): The number of children of official primary school age who are enrolled in primary education, expressed as a percentage of all children of that age. *Aggregates:* Averages are calculated using population aged 5-14 as weight. Missing data have been imputed. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Children reaching grade 5 (percentage of grade 1 students): The percentage of a cohort of pupils enrolled in grade 1 of the primary level of education in a given school year who are expected to reach grade 5, regardless of repetition. *Aggregates:* Averages are calculated using the population aged 5-14 as weight. Missing data have been imputed. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Net secondary enrolment ratio (percentage of secondary school-aged children): The number of children of official secondary school age, as defined by the national education system, who are enrolled in secondary school divided by the total population of children of official secondary school age. The exact boundary between primary and secondary education varies from country to country. *Aggregates:* Averages are weighted using the population aged 15-19. Missing data have been imputed. *Source:* UNESCO Institute for Statistics, Data Centre (online database, accessed in August 2007).

Gross tertiary enrolment ratio (percentage of tertiary school-aged children): The number of students enrolled in higher education, regardless of age, expressed as a percentage of the population of the five-year age group following on from the secondary school leaving age. *Aggregates:* Averages are calculated using the population aged 20-24 as weight. Missing data have been imputed. *Source:* UNESCO Institute for Statistics, Data Centre (online database, accessed in August 2007).

Girls to boys in net primary education (ratio): The number of girls divided by the number of boys enrolled at primary level in public and private schools. *Aggregates:* Averages are calculated using population aged 5-14 as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Girls to boys in net secondary education (ratio): The number of girls divided by the number of boys enrolled at secondary level in public and private schools. *Aggregates:* Averages are calculated using population aged 15-19 as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Girls to boys in gross tertiary education (ratio): The number of girls divided by the number of boys, regardless of age, enrolled at tertiary level in public and private schools. *Aggregates:* Averages are calculated using population aged 20-24 as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on September 2007).

Women to men literacy (ratio): The number of literate women divided by the number of literate men in the population aged 15 years and above. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

11.1 Primary education

	Net primary enrolment ratio						Children reaching grade 5					
	% of primary school-aged children						% of grade 1 students					
	1991	1999	2000	2003	2004	2005	1991	1999	2000	2003	2004	2005
East and North-East Asia												
China	98.0						86.0					
DPR Korea												
Hong Kong, China				97.2	97.1	97.0	99.8			99.6	99.3	
Macao, China	81.3	85.0	85.7	87.5	89.3	90.9						
Mongolia	95.7	92.2	93.8	83.0	89.4	88.0		87.2	88.9	90.9		
Republic of Korea	99.7	94.7	96.8	99.8	99.8	99.6	99.3	99.8	99.5	99.8	97.4	98.6
South-East Asia												
Brunei Darussalam	92.7					96.9		92.1		98.0	99.2	
Cambodia	69.5	85.0	91.1	97.5	97.6	98.9		48.6	54.6	53.5	56.8	
Indonesia	97.3		97.9	99.1	99.0	98.3	77.9			88.5	85.5	
Lao PDR	62.8	80.2	81.7	85.0	84.4	83.6		54.3	53.2	62.6	63.0	
Malaysia		97.8	96.9	93.2	95.4		95.7					
Myanmar	98.1	80.5	81.8	85.1	87.0	90.2			55.2	69.0	69.9	
Philippines	96.5	92.3		94.3	94.4	94.4				72.2	71.5	
Singapore												
Thailand	75.8					93.1 [1]						
Timor-Leste						97.8						
Viet Nam	90.2	95.8	95.4			87.8		82.8	85.7			
South and South-West Asia												
Afghanistan												
Bangladesh		93.0	93.1	97.2	97.6			64.9	65.5	65.1		
Bhutan								81.3	81.3			
India			87.4	92.0	96.1	94.6		62.0	59.0	78.9	73.0	
Iran (Islamic Rep. of)	92.4	81.6	79.8	86.5	88.7	95.4	89.9		97.5			
Maldives		97.7	96.5		84.8	79.7						
Nepal		66.9	72.7	79.0	80.1		51.3	58.0	45.8	67.1	60.8	78.5
Pakistan				59.6	65.7	68.1					69.7	
Sri Lanka				98.7	97.1		92.2					
Turkey	90.4			89.5	89.3	89.4	97.6			91.6	94.1	
North and Central Asia												
Armenia			83.7	88.2		86.2			87.9			
Azerbaijan	88.8	85.4	85.6	82.9	83.9	84.6		96.6	96.9	97.8	98.1	
Georgia	97.1		93.4	91.7	93.1			99.4	96.4			
Kazakhstan	89.3		96.5	99.1	98.9	99.0			95.9	99.7	99.5	
Kyrgyzstan	92.3	94.2	93.2	93.4	97.8	94.6		94.5	93.0	95.8	96.9	
Russian Federation	98.6			89.1	91.5	92.2						
Tajikistan	76.7		96.7	96.6	97.2	97.4		96.7	95.5	99.4	98.0	
Turkmenistan												
Uzbekistan	78.2											
Pacific												
American Samoa												
Cook Islands		86.3	78.8									
Fiji	99.4	98.9	100.0	97.3	98.7	98.7	82.1	82.1	86.1	95.8		
French Polynesia												
Guam												
Kiribati		99.2					90.7			81.4		
Marshall Islands				91.7								
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue		98.5										
Northern Mariana Is.												
Palau		96.8	96.4									
Papua New Guinea							62.1	57.4	43.8			
Samoa		94.2	92.2	99.4	99.1			92.4	95.9			
Solomon Islands				63.4			78.0					
Tonga		90.9				98.1			94.6			
Tuvalu									72.7			
Vanuatu		90.9	93.7	97.0	95.1	95.1		68.9			70.6	
ESCAP Developed Economies												
Australia	99.3	92.0	92.7	95.0	95.9	96.8	98.8					
Japan	99.7	100.0	100.0	99.9	99.9	99.8	100.0					
New Zealand	97.8	99.1	99.1	99.6	99.4	99.4						
ESCAP	91.2	90.2	90.2	92.2	94.0	93.9						
LLDC	78.5	80.7	82.6	84.2	84.9	84.6						
LDC	89.2	87.0	88.4	92.7	93.3	93.9		61.2	60.5	65.3		
SIDS												
ASEAN	92.9	92.5	92.7	93.3	93.2	93.0				82.1	80.8	
SAARC	84.6	84.2	84.3	88.4	92.3	91.5		63.5	61.1	76.2	71.7	
Central Asia	84.3	86.4	86.8	86.9	87.4	87.2						
Low-income	84.8	84.5	84.7	88.3	91.8	91.1		64.7	62.7	76.6	72.6	
Middle-income	96.5	95.4	95.3	95.9	96.1	96.3	85.4					
High-income	99.5	97.4	98.1	99.1	99.3	99.2	99.7					
Africa	57.2	62.0	63.4	67.9	68.9	71.7	65.3			66.0		
Latin America & Carib.	88.2	92.7	93.1	93.1	94.3	94.8	75.0		80.0	82.8		
North America	98.4	95.6	96.0	95.1	94.0	94.2						
Europe	93.0	96.5	96.7	97.4	96.7	96.4		97.8				
Other Asia-Pacific	77.9	80.5	81.2	86.0	85.8	85.3				82.8	83.6	
World												

[1] 2006 Data

11.2 Secondary and tertiary education

	Net secondary enrolment ratio					Gross tertiary enrolment ratio				
	% of secondary school-aged children					% of tertiary school-aged children				
	1999	2000	2003	2004	2005	1999	2000	2003	2004	2005
East and North-East Asia										
China						6	8	15	19	
DPR Korea										
Hong Kong, China			76	78				32	32	
Macao, China	62	65	75	77		27	26	78	69	
Mongolia	55	60	78	82		26	29	36	39	
Republic of Korea	97	94	87	88	90	66	73	87	89	90
South-East Asia										
Brunei Darussalam						10	12	13	13	15
Cambodia	15	15	25	26			2	3	3	
Indonesia		49	55	57				16	17	
Lao PDR	27	29	35	37		2	3	5	6	
Malaysia	69	69	76			23	26	32		
Myanmar	31	34	34	37	37	7	11			
Philippines	51		59	61		29		29	29	
Singapore										
Thailand						32	34	40	41	43
Timor-Leste										
Viet Nam	59	61				11	9	10	10	
South and South-West Asia										
Afghanistan								1	1	
Bangladesh	46	47	48			6	6	7		
Bhutan										
India							10	11	12	
Iran (Islamic Rep. of)				78		19	19	20	22	
Maldives	32	40								
Nepal							4	5	6	
Pakistan								3	3	
Sri Lanka										
Turkey						22	23	28	29	
North and Central Asia										
Armenia		85	80	89		24	24	25	26	
Azerbaijan	73	72	77	77		15	16	15	15	
Georgia	77	77	81	81		36	38	42	41	
Kazakhstan		85	90	92		25	28	45	48	
Kyrgyzstan						29	35	40	40	
Russian Federation								65	68	
Tajikistan	66	71	78	79		14	14	15	16	
Turkmenistan										
Uzbekistan								15	15	
Pacific										
American Samoa										
Cook Islands	59	57								
Fiji	79	77	77	83				15	15	
French Polynesia										
Guam										
Kiribati			71	70						
Marshall Islands			74					17		
Micronesia (F.S.)						14	14			
Nauru										
New Caledonia										
Niue	93									
Northern Mariana Is.										
Palau							41			
Papua New Guinea						2				
Samoa	72	64	66	66		12	7			
Solomon Islands	22	18	26							
Tonga	71	72		68		3	5	6	6	
Tuvalu										
Vanuatu	29	32	37	39		4	4	5	5	
ESCAP Developed Economies										
Australia		89	85	85		66	65	74	72	
Japan	99	99	100	100		45	47	52	54	
New Zealand				95		67	69	72	63	
ESCAP							14.7	17.9	19.6	
LLDC								15.2	15.9	
LDC	40.0	41.3	42.9			5.4	6.2	6.8		
SIDS										
ASEAN		49.7	55.3	56.9				19.3	19.8	
SAARC							8.6	9.5	10.2	
Central Asia								25.3	25.9	
Low-income							8.8	9.7	10.4	
Middle-income						14.5	16.2	21.7	24.6	
High-income	96.4	95.5	93.7	94.1		52.1	55.1	63.4	64.8	
Africa						8.0		8.5	8.9	
Latin America & Carib.	59.6	61.9	67.0			21.3	22.7	27.3		
North America	88.6	87.7	89.5	90.4		71.6	68.1	80.8	79.9	
Europe		88.7	90.1	90.4		47.3	49.3	57.3	59.4	
Other Asia-Pacific	45.8	46.9					19.2		23.0	
World										

11.3 Gender ratios in education and literacy

	Girls to boys in net primary education Ratio			Girls to boys in net secondary education Ratio			Girls to boys in gross tertiary education Ratio			Women to men literacy Ratio	
	1991	2000	2005	1991	2000	2005	1991	2000	2005	Earliest	Latest
East and North-East Asia											
China	0.93		1.00 [1]	0.75		1.00 [1]	0.52		0.85 [1]	0.78 (90)	0.91 (00)
DPR Korea											
Hong Kong, China											
Macao, China											0.92 (01)
Mongolia	1.02	1.04	1.02	1.14	1.23	1.14	1.89	1.79	1.62		1.00 (00)
Republic of Korea	1.01	1.01	0.99	0.97	1.00	1.00	0.49	0.57	0.62		
South-East Asia											
Brunei Darussalam										0.89 (91)	0.95 (01)
Cambodia	0.81	0.87	0.92	0.43	0.54			0.33	0.46		0.76 (04)
Indonesia	0.98	0.97	0.96	0.83	0.95	0.99			0.79	0.86 (90)	0.92 (04)
Lao PDR	0.79	0.85	0.88	0.62	0.70	0.76		0.53	0.72	0.65 (95)	0.79 (01)
Malaysia	1.00	1.00	1.00 [1]	1.05	1.11	1.14 [1]		1.09	1.31 [1]	0.87 (91)	0.93 (00)
Myanmar											0.92 (00)
Philippines	0.99		0.99	1.04		1.12	1.42		1.23	0.99 (90)	1.02 (03)
Singapore	0.97	1.00	1.00	0.93	1.02	1.03	0.71			0.87 (90)	
Thailand	0.96	0.95	0.95	0.94		1.03		1.20	1.11		0.95 (00)
Timor-Leste			0.92			1.00					
Viet Nam	0.93	0.94	0.94		0.91	0.97		0.72	0.71		0.93 (99)
South and South-West Asia											
Afghanistan	0.55		0.59	0.51		0.33			0.28 [1]		0.29 (00)
Bangladesh		1.00	1.03 [1]		1.04	1.03 [1]		0.51	0.53 [1]	0.58 (91)	0.76 (01)
Bhutan											
India	0.76	0.82	0.93	0.60	0.70	0.81	0.54	0.65	0.70	0.55 (91)	0.65 (01)
Iran (Islamic Rep. of)	0.90	0.95	1.22	0.75	0.94	0.94	0.48	0.87	1.09	0.76 (91)	0.87 (05)
Maldives		1.00	0.98		1.08	1.14 [1]			2.37 [1]	1.00 (90)	1.00 (00)
Nepal	0.63	0.79	0.91	0.46	0.71	0.86	0.33	0.40	0.40 [1]	0.35 (91)	0.56 (01)
Pakistan		0.68	0.76	0.48		0.74	0.58		0.88		0.55 (05)
Sri Lanka	0.95			1.08		1.00 [1]	0.55				0.97 (01)
Turkey	0.92	0.91	0.95	0.63		0.82	0.53	0.68	0.74	0.76 (90)	0.84 (04)
North and Central Asia											
Armenia		1.00	1.04		0.98	1.03		1.09	1.22		0.99 (01)
Azerbaijan	0.99	1.01	0.98	1.01	1.00	0.96	0.67	0.67	0.90		0.99 (99)
Georgia	1.00	1.00	1.01	0.97	0.99	1.01	1.18	0.95	1.04		
Kazakhstan	0.99	1.00	0.99	1.04	1.01	0.97		1.18	1.42		1.00 (99)
Kyrgyzstan		0.99	0.99	1.02	1.03	1.01		1.01	1.25		0.99 (99)
Russian Federation	1.00		1.00	1.06		0.99	1.27		1.36		1.00 (02)
Tajikistan	0.98	0.93	0.96		0.86	0.83	0.62	0.34	0.35		1.00 (00)
Turkmenistan										0.99 (95)	
Uzbekistan	0.98		0.99 [1]	0.91		0.97 [1]			0.80 [1]		
Pacific											
American Samoa											
Cook Islands											
Fiji	1.00	0.98	0.98	0.95	1.09	1.07			1.20		
French Polynesia											
Guam											
Kiribati		0.99	1.02		1.61	1.13					
Marshall Islands		0.96	0.96			1.05					
Micronesia (F.S.)			0.97			1.07					
Nauru		1.16	0.99 [1]		1.21	1.07 [1]					
New Caledonia											
Niue											
Northern Mariana Is.											
Palau		0.97	0.93		1.03	1.08		2.35			
Papua New Guinea	0.88	0.90		0.61	0.79						0.80 (00)
Samoa	1.02	1.00	1.00	1.96	1.14	1.12		0.93		0.99 (94)	0.99 (04)
Solomon Islands	0.86	0.92	0.95	0.61	0.78	0.83					
Tonga	0.97	0.97	0.95	1.03	1.10	1.08 [1]		1.60	1.67 [1]	1.00 (96)	
Tuvalu		1.04									
Vanuatu	0.96	0.98	0.97	0.80	1.15	0.86 [1]			0.58 [1]		
ESCAP Developed Economies											
Australia	0.99	1.00	0.99	1.03	1.00	0.95	1.19	1.23	1.25		
Japan	1.00	1.00	1.00	1.02	1.01	1.00	0.65	0.85	0.89		
New Zealand	0.99	1.01	1.00	1.02	1.07	1.07	1.14	1.45	1.5		
ESCAP	87.9		95.6	73.7		91.9	58.5		81.7		
LLDC	82.1		86.8	76.9		81.1			71.7		
LDC		95.6	94.5		94.8	90.1		48.6	49.2		
SIDS	91.7	93.9		76.7	89.8						
ASEAN	96.5	95.6	96.1	88.6		100.8			89.9		
SAARC	75.7	82.1	91.3	59.1	74.2	81.9	54.0	62.9	69.0		
Central Asia	98.5		98.8	97.4		96.1			96.5		
Low-income	77.3	83.0	91.6	59.2	75.3	81.7	54.4	63.4	69.0		
Middle-income	94.5		100.0	80.0		99.7	60.1		92.7		
High-income	100.1	100.3	99.6	100.6	100.8	99.7	66.3	81.9	86.5		
Africa	80.9	85.3	89.8	73.6		83.5			65.6		
Latin America & Carib.		96.8	96.3		106.8	107.9		121.6	122.3		
North America	98.0	98.2	99.0	100.9	100.9	102.0	124.8	132.2	140.0		
Europe	99.3	99.1	99.0	101.7	101.3	99.5	103.9	122.4	126.4		
Other Asia-Pacific	79.2		89.1			80.0					
World											

[1] 2004 Data

12. Educational outcomes

Primary to tertiary school life expectancy in Asia and the Pacific varies significantly, from countries reaching averages of 18 years to those where particularly women have on average less than 6 year of education.

Primary to tertiary school life expectancy is defined as the average number of years that a child at age 4 can expect to spend in education levels, including repetition. It therefore indicates the average duration of schooling but not the number of grades reached. This indicator is commonly used to measure the retention of an education system. It should be noted, however, that retention is only one aspect of the overall quality of education.

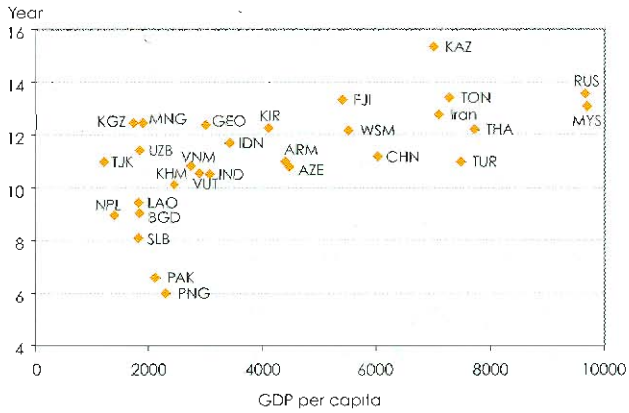
In Asia and the Pacific, the average school life expectancy for men, at 11.2, is slightly higher than that for women, at 10.8 years. In ASEAN countries, school life expectancy is basically the same for women and men, at over 11 years, but in SAARC countries, women have a lower school life expectancy, at 6.9 years, compared with 8.3 for men.

The variation between high and low-income economies is noteworthy. In low-income economies, women's primary to tertiary school life expectancy is half that of their peers in high-income economies, which stands at 15.6. For men, the differences between these income groupings are similar although the numbers are slightly higher: men in low-income economies have a school life expectancy of 9.1, compared with 16.3 for men in high-income economies.

This mixed picture is reflected in the experience of countries within these income groups. In 2004, a girl in Afghanistan could expect to be in the school system for only 3.8 years, while boys could expect to be in the school system for 9.4 years. In contrast, girls in New Zealand can expect to spend, on average, over 20.8 years in the school system, compared with 18.8 years for boys. School life expectancy levels in such Pacific islands as Nauru, Papua New Guinea and the Solomon Islands, at 8 years or less according to the latest estimates, are quite low for both sexes. It is important to note that school life expectancy is related not only to the wealth of the country but also to the duration of compulsory education, which varies from 5 to 12 years in Asia and the Pacific.

Cambodia, Malaysia, Singapore and the Solomon Islands have no compulsory education, while in the Maldives, Myanmar, Bangladesh, the Philippines and Vanuatu, going to school is compulsory only through the end of the primary level. This may explain the short school life expectancy for some of these countries, as illustrated in figure 12.1.

Figure 12.1 School life expectancy by GDP per capita in developing countries/areas in Asia and the Pacific, 2005



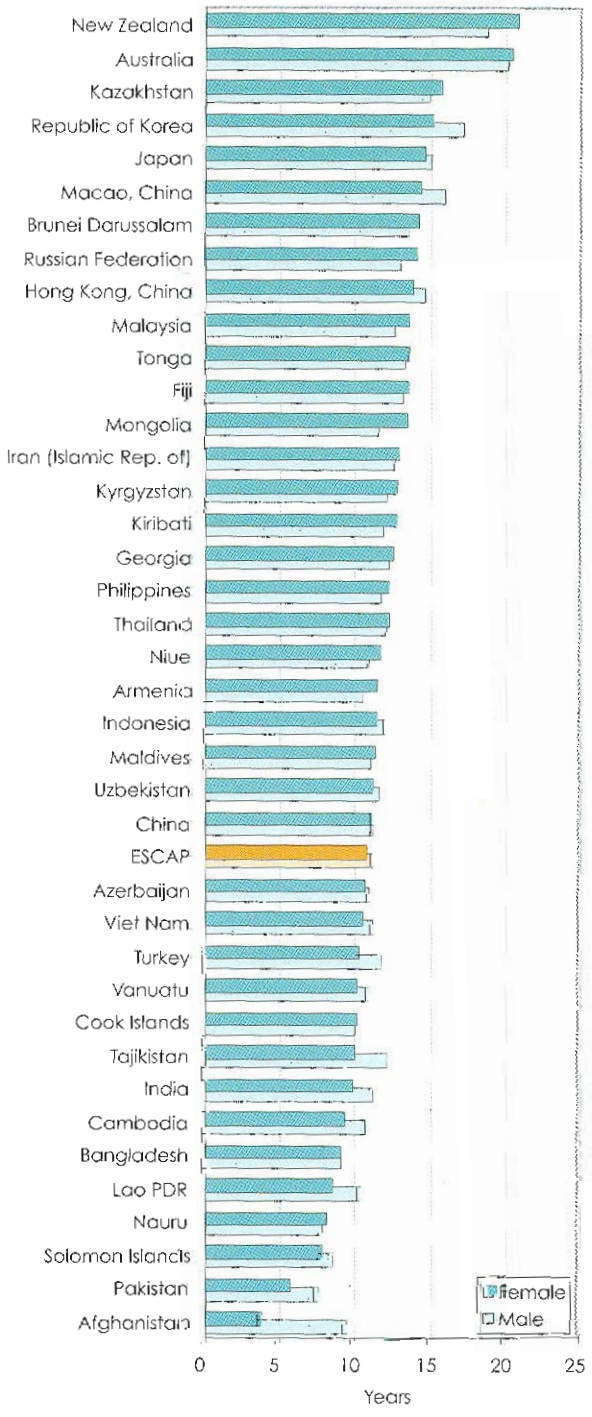
Although the region as a whole did not progress much between 1999 and 2005, some countries did. Mongolia, for example, added 3.8 years to the school life expectancy of girls and 3.7 to that of boys. Kazakhstan increased school life expectancy for girls by 3.6 years and by 3.1 years for boys. There were significant increases in school life expectancy in New Zealand and Macao, China. The only country for which trend data are available that actually registered a decrease in the values of this indicator was Niue, where school life expectancy declined for both girls and boys.

School life expectancy includes repeated grades. UNESCO estimates that 20 per cent of all primary school students in the Lao People's Democratic Republic and Nepal, and 16 per cent in the Republic of Korea, repeat at least one grade. The number of effective school years is therefore lower in these countries than what the school life expectancy numbers suggest.

School life expectancy differences between the sexes are striking in some countries. The biggest difference, over five years in favour of boys, is in Afghanistan. Nepal, Tajikistan and the Republic of Korea have a two-year gap favouring boys over girls, while the gap is significant also for Cambodia, India, the Lao People's Democratic Republic, Pakistan and Turkey. Mongolia, New Zealand and the Russian Federation, on the other hand, record a higher school life expectancy — by one year or longer — for girls than for boys (see figure 12.2 and table 12.1).

School life expectancy is linked to literacy, for literacy is the ability to identify, understand,

Figure 12.2 School life expectancy from primary to tertiary by gender in Asia and the Pacific, 2005



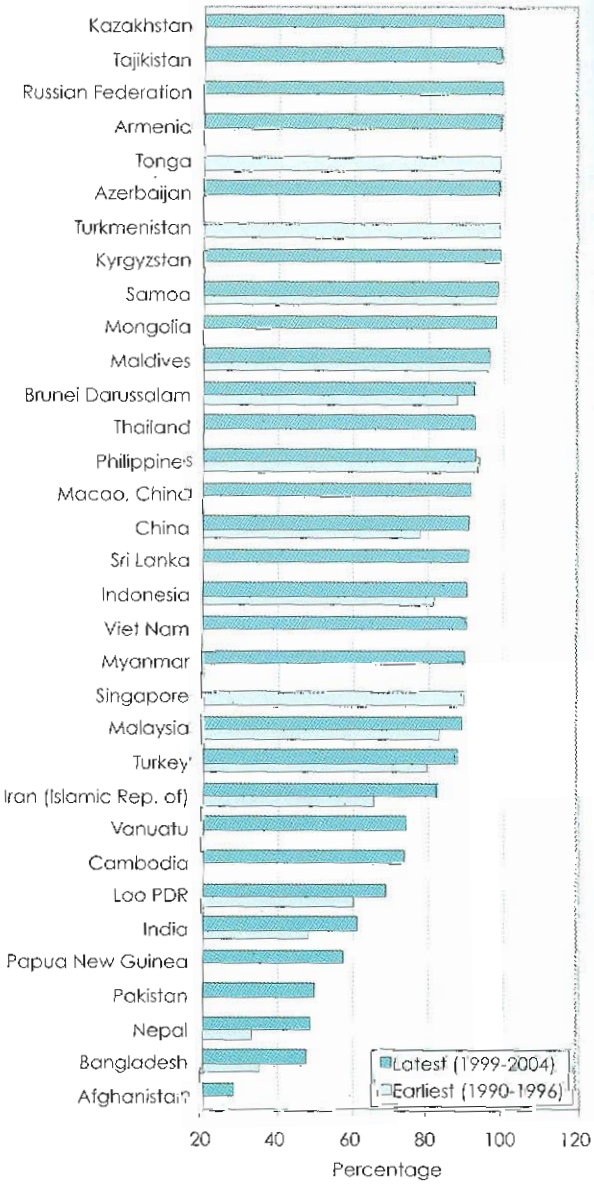
interpret, and communicate, implying a continuum of learning. This learning enables an individual to develop his or her knowledge and to participate fully in the wider society. The adult literacy rate is therefore a crucial measure of a country's human capital.

According to UNESCO (2007), there are about 781 million illiterate adults, over 60 per cent of whom are women. The majority lives in South Asia, East Asia and Africa.

Despite recent progress, many countries in South and South-West Asia still have large numbers of illiterate adults. In Bangladesh and Nepal, for example, adult literacy rates increased from 35 and 33 per cent, respectively, in 1991 to 48 and 49 per cent by 2001. The Islamic Republic of Iran experienced the largest increase in adult literacy, by 17 percentage points, reaching a rate of 82 per cent. India also recorded a rise in literacy rates, from 48 to 61 per cent, during the same period.

In North and Central Asia, literacy rates are close to 100 per cent, and in South-East Asia they have steadily increased, reaching levels of over 90 per cent in Brunei Darussalam, Indonesia, the Philippines, Thailand and Viet Nam. However, Cambodia and the Lao People's Democratic Republic have adult literacy rates of 74 and 69 per cent, respectively, and thus have yet to replicate the success of their neighbours.

Figure 12.3 Adult literacy rate (population 15 years and above) in Asia and the Pacific, earliest (1990-1996) and latest (1999-2004) years



School life expectancy from primary to tertiary for girls (years): The number of years a 4-year old girl is expected to spend in education from primary to tertiary level, including years spent on repetition. *Aggregates:* Averages are calculated using female population aged 4-5 as weight. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

School life expectancy from primary to tertiary for boys (years): The number of years a 4-year old boy is expected to spend in education from primary to tertiary level, including years spent on repetition. *Aggregates:* Averages are calculated using male population aged 4-5 as weight. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Adult literacy rate (% of population aged 15 and above): The proportion of literate persons among adult population, expressed as a percentage of population aged 15 years and above. Literacy is defined as the ability to read and write with understanding a simple statement related to one's daily life. It involves a continuum of reading and writing skills, and often includes also basic arithmetic skills. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

12.1 School life expectancy and literacy

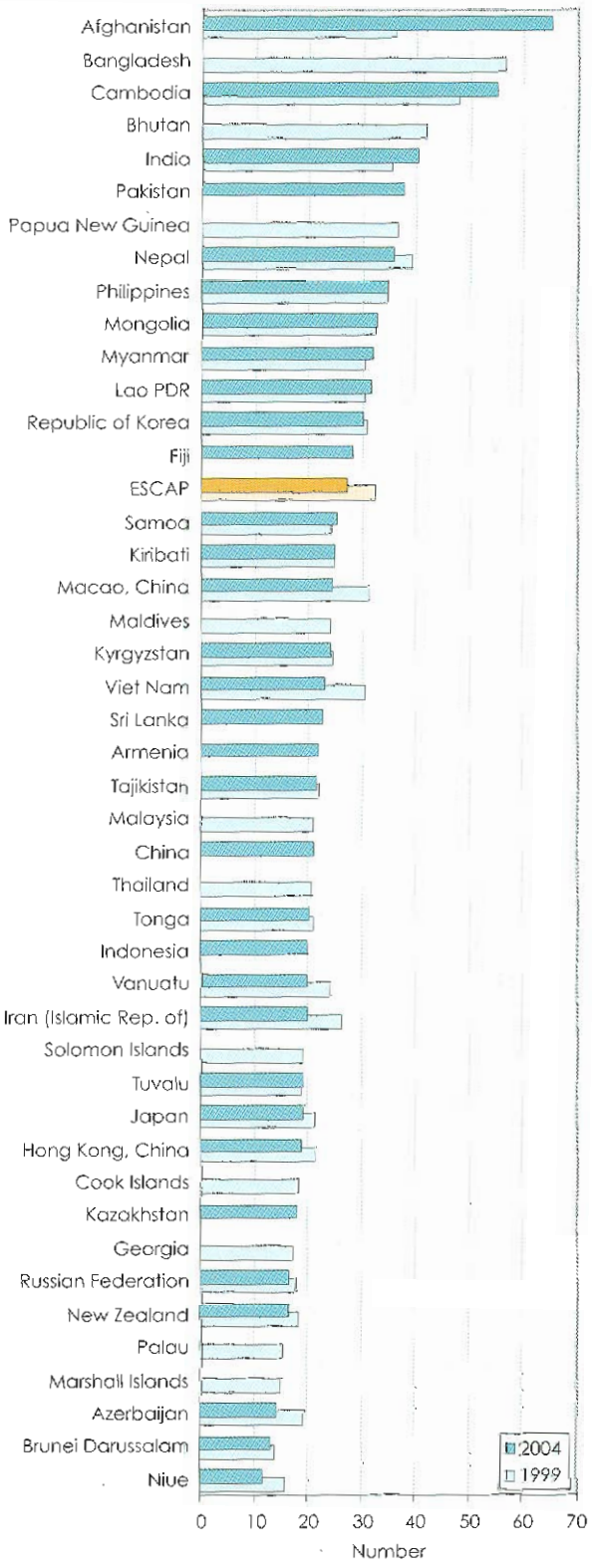
	School life expectancy from primary to tertiary						Adult literacy rate	
	Girls			Boys				
	Years						% of population aged 15 and above	
	1999	2000	2005	1999	2000	2005	Earliest	Latest
East and North-East Asia								
China			11.1			11.2	77.8 (90)	90.9 (00)
DPR Korea								
Hong Kong, China			13.9			14.7		
Macao, China	11.9	12.2	14.4	12.4	12.6	16.0		91.3 (01)
Mongolia	9.6	10.1	13.4	7.8	8.3	11.5		97.8 (00)
Republic of Korea	14.1	14.3	15.2	15.8	16.2	17.2		
South-East Asia								
Brunei Darussalam	13.9	13.7	14.3	13.2	13.0	13.5	87.8 (91)	92.7 (01)
Cambodia		6.7	9.3 [1]		8.4	10.9 [1]		73.6 (04)
Indonesia			11.4			11.9	81.5	90.4 (04)
Lao PDR	7.4	7.5	8.5	9.4	9.5	10.3	60.3 (95)	68.7 (01)
Malaysia	12.4	12.6	13.6 [1]	12.1	12.0	12.6 [1]	82.9 (91)	88.7 (00)
Myanmar	6.9			6.8				89.9 (00)
Philippines	11.9		12.3	11.4		11.7	93.6 (90)	92.6 (03)
Singapore							89.1 (90)	
Thailand			12.2			12.2		92.6 (00)
Timor-Leste								
Viet Nam	9.8	9.9	10.4	10.7	10.8	11.1		90.3 (99)
South and South-West Asia								
Afghanistan			3.8 [1]			9.4 [1]		28.0 (00)
Bangladesh	9.1	9.2	9.0 [1]	9.3	9.2	9.0 [1]	35.3 (91)	47.5 (01)
Bhutan								
India		7.6	9.7		9.9	11.2	48.2 (91)	61.0 (01)
Iran (Islamic Rep. of)	10.9	10.9	12.8	12.1	12.0	12.7	65.5 (91)	82.4
Maldives	11.9	12.2	11.4 [1]	11.7	12.1	11.1 [1]	96.0	96.3 (00)
Nepal		7.5			9.9		33.0 (91)	48.6 (01)
Pakistan			5.6			7.5		49.9
Sri Lanka								90.7 (01)
Turkey			10.2			11.7	79.2 (90)	87.4 (04)
North and Central Asia								
Armenia		10.6	11.5		10.2	10.5		99.4 (01)
Azerbaijan	10.0	10.1	10.7	10.2	10.2	10.9		98.8 (99)
Georgia	11.6	11.8	12.5	11.5	11.8	12.2		
Kazakhstan	12.2	12.6	15.8	11.8	12.0	14.9		99.5 (99)
Kyrgyzstan	11.7	11.9	12.8	11.4	11.7	12.1		98.7 (99)
Russian Federation			14.1			13.0		99.4 (02)
Tajikistan	8.9	8.9	9.9	10.6	10.7	12.0		99.5 (00)
Turkmenistan							98.8 (95)	
Uzbekistan			11.2 [1]			11.6 [1]		
Pacific								
American Samoa								
Cook Islands	10.6	10.1	10.0 [1]	10.5	9.7	10.0 [1]		
Fiji			13.5			13.1		
French Polynesia								
Guam								
Kiribati	12.2	14.2	12.7	11.2	11.4	11.8		
Marshall Islands								
Micronesia (F.S.)								
Nauru		8.1	8.0 [1]		6.7	7.8 [1]		
New Caledonia								
Niue	12.4	11.6	11.7	11.5	11.3	10.9		
Northern Mariana Is.								
Palau		15.4			13.7			
Papua New Guinea	5.6			6.3				57.3 (00)
Samoa	12.5	12.4		12.1	11.8		98.1 (94)	98.6 (04)
Solomon Islands	6.6	6.2	7.7	7.5	6.9	8.4		
Tonga	13.5	13.4	13.6 [1]	13.0	13.0	13.3 [1]	98.9 (96)	
Tuvalu								
Vanuatu			10.1 [1]			10.9 [1]		74.0 (99)
ESCAP Developed Economies								
Australia	20.3	20.4	20.4	19.8	20.1	20.2		
Japan	14.3	14.4	14.7	14.6	14.7	15.0		
New Zealand	18.2	18.6	20.8	16.8	17.0	18.8		
ESCAP			10.7			11.2		
LLDC			8.6			11.0		
LDC	8.6	8.7	8.1	8.8	9.3	9.2		
SIDS								
ASEAN			11.5			11.8		
SAARC		8.9	6.9		9.4	8.3		
Central Asia			12.0			12.2		
Low-income		9.1	7.8		9.7	9.1		
Middle-income			11.5			11.6		
High-income	15.0	15.2	15.6	15.6	15.9	16.3		
Africa								
Latin America & Carib.	13.1	13.3	13.8	12.7	12.8	13.2		
North America		16.4	17.2		15.8	16.6		
Europe	15.1	15.3	15.9	14.7	14.9	15.1		
Other Asia-Pacific			9.9			11.8		
World								

[1] 2004 data

13. Financial and human resources for education

The pupil-teacher ratio in primary education varies widely across the region and in some countries is over 40.

Figure 13.1 Pupil-teacher ratio in primary education in Asia and the Pacific, 1999 and 2004



According to UNESCO, one of the single most important determinants of the quality of education is daily interaction between teachers and students. This not only improves learning but also has positive effects on a child's overall development. UNESCO states that a ratio of over 40 students per teacher makes it difficult to attain a minimum quality standard.

Data on pupil-teacher ratios is so scarce that subregional aggregates can hardly be assessed. However, pupil-teacher ratios in primary education are patently highest in the countries of South and South-West Asia. The countries of North and Central Asia, on the other hand, register the lowest ratios in primary schooling, at about 20 students per teacher.

Afghanistan, at 65, has one of the highest ratios of students per teacher, not only in Asia and the Pacific but in the world. India had a ratio of 40 pupils per teacher in 2004, up from 35 in 1999. Although 2004 data is not available for Bangladesh, in 2000 it had a ratio of 57 students per teacher, while in Nepal by 2005 there were 40 pupils per teacher at the primary level.

In South-East Asia, ratios in the Philippines, Myanmar and the Lao People's Democratic Republic surpass 30 students per teacher, but Cambodia had the second highest ratio in the Asian and the Pacific region, at 55 pupils per teacher in 2004.

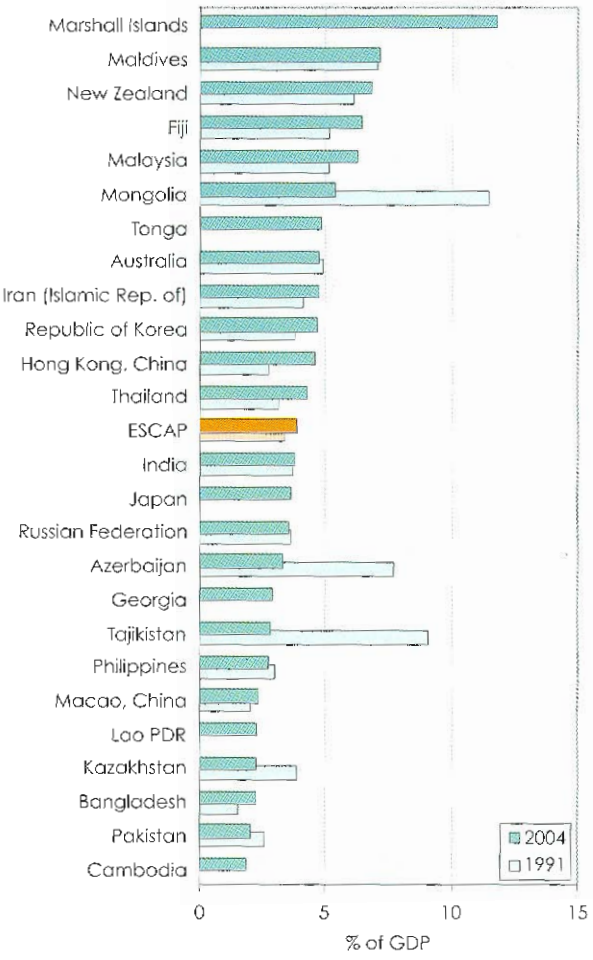
Ratios of pupils per teacher at the secondary education level are lower than those for primary. In most countries/areas' the ratio is below 20. The highest ratios are found in the Philippines, Pakistan, Myanmar, and India.

The vast majority of the financial resources for education, particularly in developing countries, is devoted to paying teachers' salaries. In some countries, those salaries represent over 75 per cent of public expenditure on education (UNESCO, 2006).

Small island developing States devote a considerable part of their public expenditure to education relative to the size of their economies. In the Marshall Islands, public education accounts for 11.8 per cent of the country's GDP – the highest level in Asia and the Pacific. Public expenditure on education in the Maldives and Fiji accounted for 7.2 and 6.4 per cent of their GDP in 2004.

In South and South-West Asia, where the largest investment needs to be made, spending on education remain particularly low in Bangladesh and Pakistan, just over 2 per cent of GDP.

Figure 13.2 Public expenditure on education as a percentage of GDP in Asia and the Pacific, 1991 and 2004



When expenditure on education is measured as a percentage of total government expenditure, the picture changes; it shows the importance that Governments attach to education relative to overall public spending.

In Thailand and Malaysia, government spending on education represented one quarter of total public spending in 2004. In both cases, this represents a substantial increase — by 7 percentage points — from 1991 levels. Hong Kong, China, registered a rise in education spending as a proportion of total public expenditure from 17.4 per cent in 1991 to 23.3 per cent by 2004.

Tajikistan and the Republic of Korea were the countries that experienced the largest decline in educational spending relative to overall public expenditure, decreasing from 24.4 and 25.6 per cent, respectively, at the beginning of the 1990s, to a little over 16 per cent by 2004.

Pupils-to-teacher in primary education (ratio): Average number of pupils per teacher in primary education in a given school year, based on head counts for both pupils and teachers. *Aggregates:* Averages are calculated as the sum of total primary enrolment divided by the sum of teaching staff. Missing data have been imputed. *Source:* Calculated by ESCAP using data from UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Pupils-to-teacher in secondary education (ratio): Average number of pupils per teacher in secondary education in a given school year, based on head counts for both pupils and teachers. *Aggregates:* Averages are calculated as the sum of total secondary enrolment divided by the sum of teaching staff. Missing data have been imputed. *Source:* Calculated by ESCAP using data from UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Public expenditure on education (% of GDP): Current and capital expenditures on education by national, regional, local governments including municipalities, expressed as a percentage of GDP. Household contributions are excluded. *Aggregates:* Averages are calculated using GDP in US dollars as weight. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Public expenditure on education (% of total government expenditure): Current and capital expenditures on education by national, regional, local governments including municipalities, expressed as a percentage of the total government expenditure. Household contributions are excluded. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Public expenditure per pupil in primary education (% of GDP per capita): Total public expenditure per pupil at the primary level, expressed as a percentage of GDP per capita. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Public expenditure per pupil in secondary education (% of GDP per capita): Total public expenditure per pupil at the secondary level, expressed as a percentage of GDP per capita. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

Public expenditure per pupil in tertiary education (% of GDP per capita): Total public expenditure per student at the tertiary level, expressed as a percentage of GDP per capita. *Source:* UNESCO Institute for Statistics, Data Centre, (online database, accessed on August 2007).

13.1 Pupil-teacher ratio

	Pupils-to-teacher in primary education				Pupils-to-teacher in secondary education			
	Ratio				Ratio			
	1999	2000	2004	2005	1999	2000	2004	2005
East and North-East Asia								
China			21.1			14.5	16.2	
DPR Korea								
Hong Kong, China	21.6	21.3	18.8				17.2	
Macao, China	31.2	30.0	24.4		22.0	22.4	22.0	
Mongolia	32.4	32.6	32.9		17.8	19.1	21.3	
Republic of Korea	30.9	32.2	30.1	29.0	17.8	17.6	15.0	15.3
South-East Asia								
Brunei Darussalam	14.0	13.6	13.1		10.4	10.5	9.6	
Cambodia	47.8	50.1	55.1		17.1	18.0	24.5	
Indonesia		22.4	20.1			13.5	12.3	
Lao PDR	30.6	30.1	31.4		20.1	21.0	26.3	
Malaysia	21.3	19.6				17.3		
Myanmar	30.6	32.8	32.0	30.9	30.1	31.9	33.0	33.1
Philippines	34.7		34.5		34.1		37.5	
Singapore								
Thailand	20.6	20.8						
Timor-Leste								
Viet Nam	30.4	29.5	23.0		28.0	27.3	23.6	
South and South-West Asia								
Afghanistan	36.3	64.0	65.2					
Bangladesh	56.4	57.1			37.0	38.0		
Bhutan	41.7	41.1			32.2	32.5		
India	35.4	40.0	40.2		33.3	33.3	32.1	
Iran (Islamic Rep. of)	26.5	26.1	20.0		28.4	27.6	18.0	
Maldives	24.3	22.7			17.1	14.9		
Nepal	39.0	42.6	35.8	39.7	31.0	29.8		
Pakistan		33.0	37.5				36.2	
Sri Lanka			22.5					
Turkey								
North and Central Asia								
Armenia			21.8				9.8	
Azerbaijan	19.2	18.7	14.3		7.6	7.6	8.5	
Georgia	17.4	16.8			7.3	7.2		
Kazakhstan		18.7	17.9			10.8	10.8	
Kyrgyzstan	24.4	24.1	24.2		12.6	12.8	13.2	
Russian Federation	17.6		16.6				8.7	
Tajikistan	22.0	21.8	21.5		15.9	15.9	15.4	
Turkmenistan								
Uzbekistan								
Pacific								
American Samoa								
Cook Islands	18.0	17.8				13.9		
Fiji		28.1	28.2				21.8	
French Polynesia								
Guam								
Kiribati	24.7	31.7	24.7		19.6	17.6	18.6	
Marshall Islands	14.9				21.6			
Micronesia (F.S.)								
Nauru		21.5				17.4		
New Caledonia								
Niue	15.8	14.7	11.5		10.7	11.8	8.4	
Northern Mariana Is.								
Palau	15.0	15.7			12.9	15.1		
Papua New Guinea	36.5	35.9			18.9	18.8		
Samoa	24.0	24.0	25.0		19.9	21.2	20.8	
Solomon Islands	19.2				12.7	10.1		
Tonga	20.9	22.1	20.3		13.7	13.7		
Tuvalu	18.9	19.7	19.2					
Vanuatu	24.2	22.5	20.0		20.7	20.3		
ESCAP Developed Economies								
Australia								
Japan	21.0	20.7	19.2		12.4	12.2	11.2	
New Zealand	18.3	18.4	16.4				11.4	
ESCAP			27.5			19.1	19.1	
LLDC	28.5	29.9	33.4					
LDC								
SIDS					18.7	18.2		
ASEAN	25.9	25.8				19.5	18.3	
SAARC	36.9	40.8			33.7	33.8		
Central Asia								
Low-income	36.6	40.2	40.9					
Middle-income	20.6	20.6	21.2		14.1	14.7		
High-income							12.3	
Africa	36.7	37.2						
Latin America & Carib.					17.2	17.3		
North America								
Europe		14.3	13.8					
Other Asia-Pacific		17.7			12.7			
World								

13.2 Financial resources for education

	Public expenditure on education % of GDP				Public expenditure on education % of total government expenditure			
	1991	2000	2004	2005	1991	2000	2004	2005
East and North-East Asia								
China	2.2				12.7			
DPR Korea								
Hong Kong, China	2.8		4.6	4.2	17.4		23.3	23.0
Macao, China	2.0	3.6	2.3		10.4	13.9	14.0	
Mongolia	11.5	6.7	5.3		22.7			
Republic of Korea	3.8		4.6		25.6		16.5	
South-East Asia								
Brunei Darussalam	3.5					9.1		
Cambodia		1.7	1.9			14.6		
Indonesia	1.0	1.4						
Lao PDR		1.5	2.3	2.3		7.4	10.8	11.7
Malaysia	5.1	6.2	6.2		18.0	26.7	25.2	
Myanmar		0.6				8.7		
Philippines	3.0	3.5	2.7		10.5	13.9	16.4	
Singapore	3.1				18.2			
Thailand	3.1	5.4	4.2	4.2	20.0	31.0	26.8	25.0
Timor-Leste								
Viet Nam	1.8				9.7			
South and South-West Asia								
Afghanistan								
Bangladesh	1.5	2.5	2.2	2.5	10.3	15.0	14.8	14.2
Bhutan		5.6				13.8		
India	3.7	4.4	3.8		12.2	12.7		
Iran (Islamic Rep. of)	4.1	4.3	4.7	4.7	22.4	18.3	17.9	22.8
Maldives	7.0		7.2	7.1	16.0			15.0
Nepal	2.0	3.0			8.5	13.2		
Pakistan	2.6	1.8	2.0	2.3	7.4		6.4	10.9
Sri Lanka	3.2				8.4			
Turkey	2.4	3.5						
North and Central Asia								
Armenia		3.2						
Azerbaijan	7.7	3.9	3.3	2.5	24.7	23.8		19.6
Georgia		2.2	2.9			11.7	13.1	
Kazakhstan	3.9	3.3	2.3	2.3	19.1	12.1		
Kyrgyzstan	6.0	2.9			22.7			
Russian Federation	3.6	2.9	3.6			10.6	12.9	
Tajikistan	9.1	2.3	2.8	3.5	24.4		16.9	18.0
Turkmenistan	3.9				19.7			
Uzbekistan	9.4				17.8			
Pacific								
American Samoa								
Cook Islands		0.2						
Fiji	5.1	6.0	6.4			22.8		
French Polynesia								
Guam								
Kiribati		15.3						
Marshall Islands		14.5	11.8					
Micronesia (F.S.)		7.3						
Nauru								
New Caledonia								
Niue								
Northern Mariana Is.								
Palau		9.8						
Papua New Guinea								
Samoa		4.0				13.3		
Solomon Islands	3.8				7.9			
Tonga		6.0	4.8			16.5		
Tuvalu								
Vanuatu	4.6	7.8			18.8	16.9		
ESCAP Developed Economies								
Australia	4.9	4.8	4.7		14.8	13.3		
Japan		3.6	3.6			10.5	9.8	
New Zealand	6.1		6.8	6.5				
ESCAP		3.7	3.9					
LLDC	6.0							
LDC	1.6	2.3	2.3					
SIDS								
ASEAN	2.5	3.7						
SAARC	3.3	3.9	3.4					
Central Asia	6.1							
Low-income	3.5	3.8	3.4					
Middle-income	2.9							
High-income		3.7	3.9					
Africa	4.5							
Latin America & Carib.		4.5	4.7					
North America	5.2		5.9					
Europe	4.8	5.0	5.3					
Other Asia-Pacific								
World								

13.3 Public expenditure on education

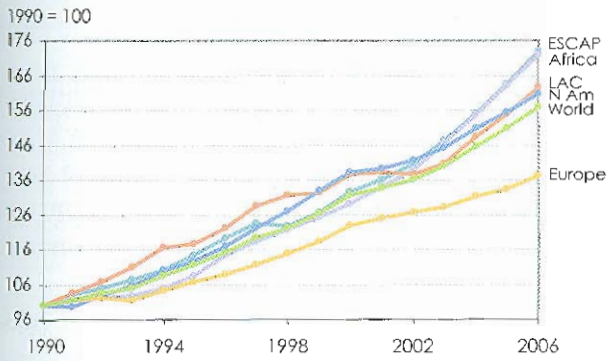
	Public expenditure per pupil in primary education % of GDP per capita				Public expenditure per pupil in secondary education % of GDP per capita				Public expenditure per pupil in tertiary education % of GDP per capita			
	1999	2000	2004	2005	1999	2000	2004	2005	1999	2000	2004	2005
East and North-East Asia												
China					11.5				90.1			
DPR Korea												
Hong Kong, China			15.3	14.9			21.0	19.9			68.5	60.6
Macao, China		8.4				11.3			59.4	61.0		
Mongolia			14.3				13.2				22.8	
Republic of Korea	18.4		19.2		15.7		25.0		8.4		9.0	
South-East Asia												
Brunei Darussalam												
Cambodia		5.9	6.1								77.5	
Indonesia		3.7				7.3				21.3		
Lao PDR	2.2	3.9		9.7	4.3	5.6		4.9	66.9	69.0		26.8
Malaysia		12.8	14.6			22.3	21.1			83.3	71.1	
Myanmar												
Philippines		12.5	9.2			10.7	9.0			15.0	12.4	
Singapore												
Thailand		17.6	14.0				15.5			35.5	23.0	24.9
Timor-Leste												
Viet Nam												
South and South-West Asia												
Afghanistan												
Bangladesh	7.3	8.2	7.0	7.7	12.4	11.4	13.5	14.7	46.3	43.5	43.2	49.7
Bhutan		14.4				103.2				574.0		
India	10.6	14.5	9.4		21.2	24.3	16.8		74.5	90.5	94.7	
Iran (Islamic Rep. of)			10.0	9.7			10.9	11.0			25.1	22.8
Maldives			19.6	22.0			17.2					
Nepal	9.1	10.3			13.1	11.6				141.7		
Pakistan												
Sri Lanka												
Turkey		11.2								45.5		
North and Central Asia												
Armenia										29.1		
Azerbaijan	6.9	7.6		6.3	17.0	18.2		10.2	19.1	15.9		10.4
Georgia												
Kazakhstan			9.6	10.0			7.5	7.9			6.0	5.7
Kyrgyzstan	6.2	5.3			11.9	9.9			27.7	16.7		
Russian Federation											10.8	
Tajikistan			6.7	8.7			9.2	11.3			8.8	14.1
Turkmenistan												
Uzbekistan												
Pacific												
American Samoa												
Cook Islands	1.0	0.9			1.2	1.0						
Fiji			18.6				17.2				67.1	
French Polynesia												
Guam												
Kiribati	37.1	37.3										
Marshall Islands	71.7				28.0							
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea												
Samoa	9.1	8.2			10.0	9.6			212.8	137.5		
Solomon Islands												
Tonga			12.2				9.4				159.0	
Tuvalu												
Vanuatu	12.4	15.3			79.2	70.6			130.2	167.9		
ESCAP Developed Economies												
Australia	16.4	16.4	16.4		15.0	14.2	15.0		26.5	25.9	23.2	
Japan	20.7	21.2	22.4		20.5	20.8	22.3		14.8	17.4	20.5	
New Zealand	20.3	20.4	19.4	19.2	24.5	23.3	22.7	22.4	42.0		34.1	25.1
ESCAP												
LLDC												
LDC												
SIDS												
ASEAN												
SAARC												
Central Asia												
Low-income												
Middle-income												
High-income												
Africa												
Latin America & Carib.												
North America												
Europe												
Other Asia-Pacific												
World												

14. Economic growth

The combined economy of Asia and the Pacific is the third largest in the world after Europe and North America and is the fastest growing region in the world.

Gross domestic product (GDP) has been on the rise at increasing rates in Asia and the Pacific since 1990 and is currently at over US$ 10 trillion dollars. The only other region where there is such a steady upward trend is Africa, which recorded a 5.3 per cent average annual growth rate in 2006, not far behind the 5.7 per cent of Asia and the Pacific. The GDP level for Africa, however, is the smallest among world regions, at less than US$ 900 billion, or 2.5 per cent of global GDP.

Figure 14.1 Index of change in GDP in the regions of the world, 1990-2006



Central Asia grew at an impressive rate of 12.4 per cent in 2006, making it the lead Asian and Pacific subregion in economic growth. GDP growth for ASEAN, on the other hand, was a more moderate 5.9 per cent in 2006. The low- and middle-income economies grew at an average annual growth rate of 8.5 per cent, while the high-income economies grew at 3.3 per cent.

There were 10 countries or areas in Asia and the Pacific that grew at a rate over 9 per cent in 2006. Azerbaijan recorded a striking growth rate of 34.5 per cent, followed by the Maldives at 21.7 per cent. Macao, China, had a growth rate of 16.6 per cent in 2006. Afghanistan, China and Kazakhstan grew at around 11 per cent while India, Georgia, Turkmenistan and Uzbekistan all had growth rates of about 9 per cent.

North America and Europe have the highest per capita GDP levels, followed by Latin America and the Caribbean and Asia and the Pacific. Africa has the lowest level of per capita GDP at US$ 967; just a fraction of the North American level at US$ 30,369 in 2006. As in the case of total per capita GDP growth, Asia and the Pacific

Figure 14.2 GDP growth rate in Asia and the Pacific, 1990 and 2006

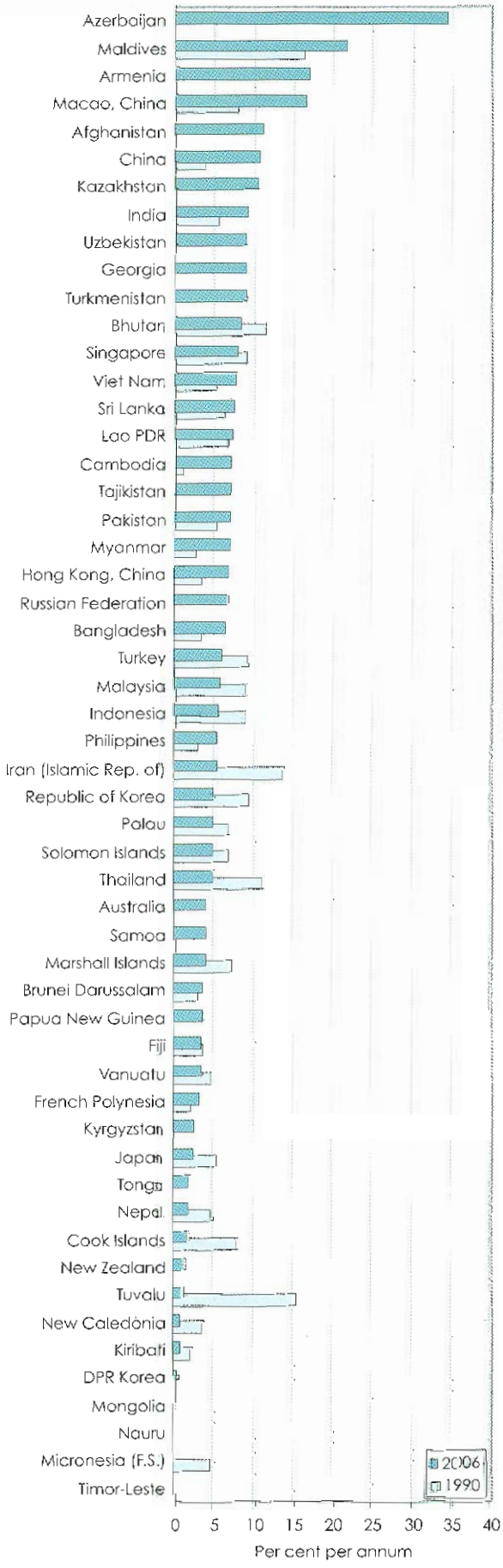


Figure 14.3 Asian and Pacific countries/areas with GDP per capita above that of the Asian and Pacific regional average, 2006

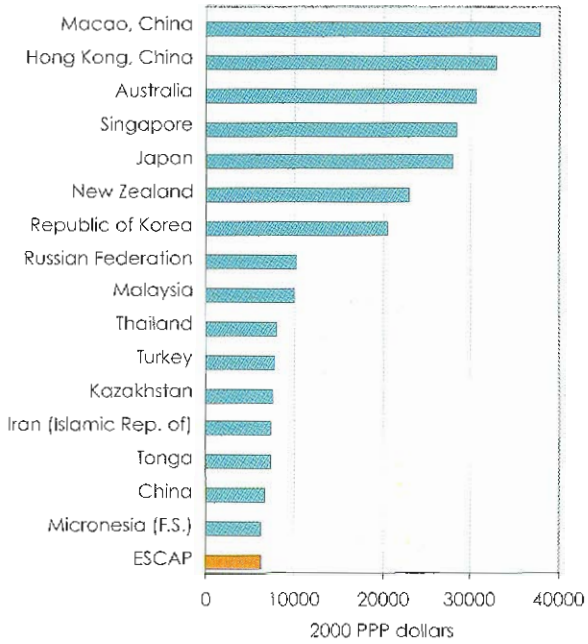
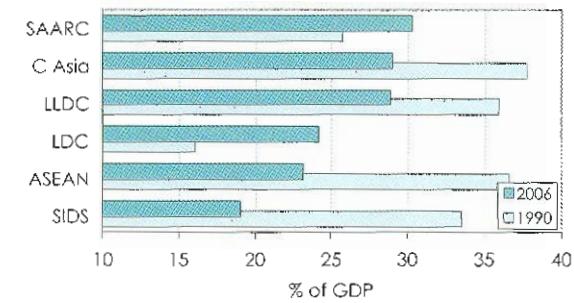


Figure 14.4 Gross domestic investment (GDI) rate for selected Asian and Pacific country/area groupings, 1990 and 2006

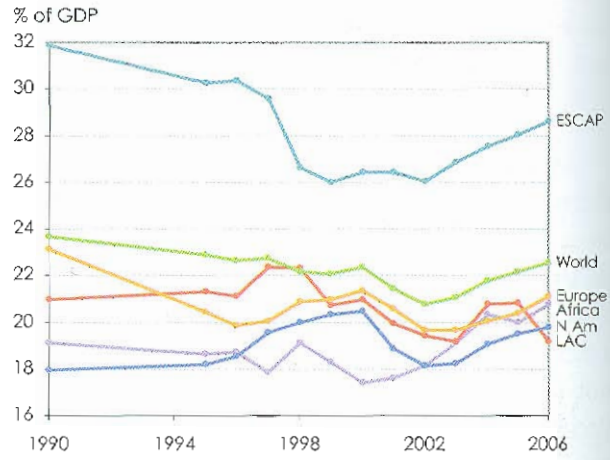


had the highest growth rate for per capita GDP at 4.6 per cent.

In terms of per capita GDP levels measured at 2000 purchasing power parity (PPP), however, Asia and the Pacific is the fourth largest region in the world, at US$ 6,156 according to 2006 data; it is ahead of only Africa. Apart from the developed countries in the region, there are 13 countries or areas with per capita GDP level above the regional average. Macao, China, and Hong Kong, China, along with Singapore have per capita GDP levels that are six- and five-fold that of the Asian and Pacific region. The per capita GDP level of the Republic of Korea is three times the regional average.

The contribution of domestic investment to GDP growth has been volatile with an overall decreasing trend throughout the past 16 years. Figure 14.5 depicts the evolution of gross domestic investment (GDI) in the world regions.

Figure 14.5 Gross domestic investment (GDI) rate for the regions of the world, 1990-2006



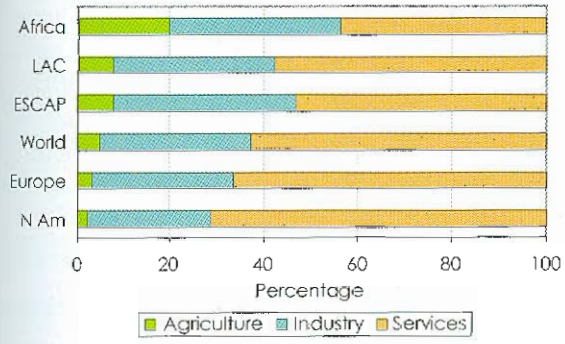
Among country groupings, only the least developed countries and SAARC countries have increased the share of domestic investment in GDP between 1990 and 2006. In terms of country income groupings, only the low-income economies have a growing GDP share of GDI.

As the components of GDP grow at different rates, so do different sectors. Value added by sector as a percentage of GDP and the change in value added are two indicators that provide information on the growth patterns of different economic activities.

In all regions of the world, the highest value added is in services followed by industry and agriculture. In Asia and the Pacific, the value added in services is at over 50 per cent of GDP for 2006. This is the case for all other regions, with North America leading at 71.3 per cent, except for Africa, where the value added in this sector remains at 43.5 per cent. North America has the lowest value added in the industry, at 26.6 per cent, while Asia and the Pacific has the highest, at 38.9 per cent. North America records the lowest value added also for agriculture, at 2.2 per cent. The value added in agriculture as a share of GDP in Africa is the highest, at 20 per cent.

The value added in the three sectors as a percentage of GDP follows the same pattern as the region in all Asian and Pacific country groupings except for the least developed countries. In this group, the value added in agriculture, at 29.8 per cent, supersedes that in industry, which stands at 25.3 per cent. The middle-income economies, on the other hand, had the largest value added in industry, at 51.2 per cent, followed by services, at 35.1 per cent of GDP. Agriculture in these economies had a value added of 13.7 per cent of GDP.

Figure 14.6 Value added by sector for the regions of the world, 2006

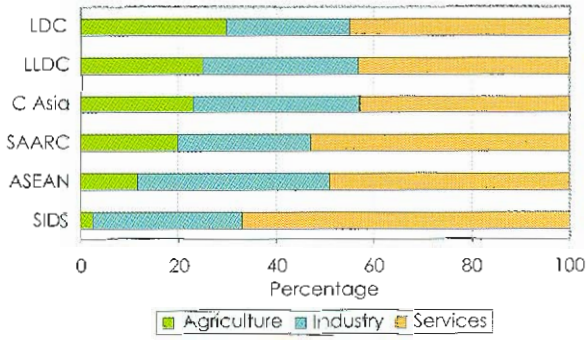


In Hong Kong, China, and Macao, China, the value added in services is around 90 per cent of GDP, while the value added in agriculture is minuscule. In Singapore, the value added in services is about 70 per cent, similarly with an insignificant value added in agriculture.

The average annual value added grew in every sector all around the world except for agriculture in North America, which fell by 2.7 per cent in 2006. Despite the case of North America and the fact that the value added in agriculture makes up a small part of the GDP in most parts of the world, this sector has seen the highest growth rates in terms of value added. In Latin America and the Caribbean, the value added in agriculture grew by 13.7 per cent in 2006, and in Asia and the Pacific this rate was 10.3 per cent, above the world average rate of 7.3 per cent. The largest value added growth rate in industry was again in Latin America and the Caribbean, at 9.1 per cent, nearly twice the world average of 4.6 per cent. The highest growth rate of the value added in services was in Africa, at 4.9 per cent, exceeding the world rate of 3.4 per cent.

All country groupings had the biggest value added growth in agriculture in 2006, except for small island developing States, where industry grew at the highest rate. The services sector was the second fastest growing economic activity in all country groupings, excluding ASEAN and landlocked developing countries.

Figure 14.7 Value added by sector for selected Asian and Pacific country/area groupings, 2006



Gross domestic product (GDP) (million 1990 United States dollars): The total value added at every stage of production of all final goods and services produced within a country's borders in one year, expressed in millions of 1990 United States dollars. *Aggregates:* Sum of individual country values. *Source:* National Accounts Main Aggregates Database (online database, accessed in September 2007).

Average annual GDP growth rate (percentage): The GDP average annual rate of change is calculated on the basis of 1990 United States dollars. *Source:* National Accounts Main Aggregates Database (online database, accessed in September 2007).

GDP per capita (1990 United States dollars): Gross domestic product in 1990 United States dollars divided by the total population. *Aggregates:* Sum of individual country values. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

GDP per capita (2000 PPP dollars): The gross domestic product in 2000 constant prices divided by mid-year population, expressed in international dollars based on purchasing power parities. An international dollar has the same purchasing power over GDP as one United States dollar has in the United States. *Aggregates:* Sum of individual country values. *Source:* World Bank, *World Development Indicators* (online database, accessed in September 2007).

Average annual GDP per capita growth rate (percentage): The GDP per capita average annual rate of change is calculated on the basis of 1990 United States dollars. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

Gross domestic investment rate (% of GDP): The gross fixed capital formation and change in inventories divided by the total GDP by expenditure, calculated on GDP in national currencies and expressed as a percentage. *Aggregates:* Averages are calculated using GDP in United States dollars as weight. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

Average annual gross domestic investment growth rate (percentage): The gross domestic investment average annual rate of change is calculated using GDP in national currencies. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

Value added in agriculture (% of total value added): The net value added by agriculture: the value of output less the value of intermediate consumption and consumption of fixed capital based on national currencies. *Aggregates:* Averages are calculated using GDP in 1990 United States dollars as weight. *Source:* National Accounts Main Aggregates Database (online database, accessed in September 2007).

Value added in industry (% of total value added): The net value added by industry: the value of output less the value of intermediate consumption and consumption of fixed capital based on national currencies. *Aggregates:* Averages are calculated using GDP in 1990 United States dollars as weight. *Source:* National Accounts Main Aggregates Database (online database, accessed in September 2007).

Value added in services (% of total value added): The net value added by services: the value of output less the value of intermediate consumption and consumption of fixed capital based on national currencies. *Aggregates:* Averages are calculated using GDP in 1990 United States dollars as weight. *Source:* National Accounts Main Aggregates Database (online database, accessed in September 2007).

Average annual value added in agriculture growth rate (percentage): The average annual rate of change of the total value added by agriculture is calculated on the basis of 1990 United States dollars. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

Average annual value added in industry growth rate (percentage): The average annual rate of change of the total value added by industry is calculated on the basis of 1990 United States dollars. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

Average annual value added in services growth rate (percentage): The average annual rate of change of the total value added by services is calculated on the basis of 1990 United States dollars. *Source:* Calculated by ESCAP using data from National Accounts Main Aggregates Database (online database, accessed in September 2007).

14.1 Gross domestic product (GDP)

	Gross domestic product (GDP) Million 1990 US dollars					Average annual GDP growth rate Percentage			
	1990	1995	2000	2005	2006	90-95	95-00	00-05	2006
East and North-East Asia									
China	404 494	721 274	1 090 368	1 719 444	1 903 424	12.3	8.6	9.5	10.7
DPR Korea	14 702	12 005	11 538	12 430	12 485	-4.0	-0.8	1.5	0.4
Hong Kong, China	75 934	101 003	119 628	147 715	157 796	5.9	3.4	4.3	6.8
Macao, China	2 990	3 978	3 893	6 910	8 057	5.9	-0.4	12.2	16.6
Mongolia	1 256	1 088	1 251	1 657	1 658	-2.8	2.8	5.8	0.1
Republic of Korea	263 776	384 194	475 958	593 434	623 157	7.8	4.4	4.5	5.0
South-East Asia									
Brunei Darussalam	3 441	3 733	4 241	4 699	4 875	1.6	2.6	2.1	3.7
Cambodia	1 698	2 321	3 285	5 086	5 452	6.5	7.2	9.1	7.2
Indonesia	125 720	183 279	190 071	239 276	252 557	7.8	0.7	4.7	5.6
Lao PDR	866	1 181	1 593	2 165	2 323	6.4	6.2	6.3	7.3
Malaysia	44 025	69 219	87 469	108 912	115 350	9.5	4.8	4.5	5.9
Myanmar	5 179	6 877	10 333	18 867	20 186	5.8	8.5	12.8	7.0
Philippines	44 312	49 325	59 115	74 364	78 357	2.2	3.7	4.7	5.4
Singapore	36 901	56 791	77 374	94 090	101 500	9.0	6.4	4.0	7.9
Thailand	85 361	129 105	132 031	169 023	177 461	8.6	0.4	5.1	5.0
Timor-Leste	179	223	184	193	190	4.5	-3.7	0.9	-1.6
Viet Nam	6 472	9 600	13 433	19 290	20 795	8.2	7.0	7.5	7.8
South and South-West Asia									
Afghanistan	3 622	3 025	2 539	4 595	5 105	-3.5	-3.4	12.6	11.1
Bangladesh	31 830	39 640	51 416	67 519	71 908	4.5	5.3	5.6	6.5
Bhutan	279	336	466	672	729	3.8	6.8	7.6	8.5
India	327 930	421 504	558 420	779 245	850 962	5.1	5.8	6.9	9.2
Iran (Islamic Rep. of)	90 368	107 063	130 569	169 566	178 662	3.4	4.0	5.4	5.4
Maldives	215	298	445	569	693	6.8	8.3	5.0	21.7
Nepal	3 521	4 534	5 738	6 635	6 759	5.2	4.8	2.9	1.9
Pakistan	57 159	71 252	81 353	107 744	115 277	4.5	2.7	5.8	7.0
Sri Lanka	8 204	10 700	13 696	16 645	17 893	5.5	5.1	4.0	7.5
Turkey	150 676	176 473	214 154	264 618	280 608	3.2	3.9	4.3	6.0
North and Central Asia									
Armenia	2 157	1 140	1 463	3 047	3 563	-12.0	5.1	15.8	16.9
Azerbaijan	6 515	2 728	3 835	7 214	9 701	-16.0	7.0	13.5	34.5
Georgia	8 532	2 411	3 180	4 547	4 956	-22.3	5.7	7.4	9.0
Kazakhstan	29 659	18 207	20 594	33 730	37 305	-9.3	2.5	10.4	10.6
Kyrgyzstan	670	1 322	1 006	1 212	1 244	14.6	-5.3	3.8	2.7
Russian Federation	569 709	353 709	382 917	515 825	550 385	-9.1	1.6	6.1	6.7
Tajikistan	2 869	1 091	1 091	1 733	1 854	-17.6	0.0	9.7	7.0
Turkmenistan	3 069	1 939	2 413	2 983	3 251	-8.8	4.5	4.3	9.0
Uzbekistan	14 710	11 931	14 469	18 955	20 660	-4.1	3.9	5.5	9.0
Pacific									
American Samoa									
Cook Islands	59	69	78	94	96	3.2	2.5	4.0	1.8
Fiji	1 337	1 519	1 687	1 901	1 966	2.6	2.1	2.4	3.4
French Polynesia	2 930	3 145	3 692	4 347	4 492	1.4	3.3	3.3	3.3
Guam									
Kiribati	28	35	46	53	54	4.0	5.8	3.0	0.8
Marshall Islands	69	76	59	64	67	2.1	-5.0	1.7	4.0
Micronesia (F.S.)	146	177	165	169	168	4.0	-1.4	0.4	-0.7
Nauru	51	36	30	30	30	-6.6	-3.7	0.3	0.0
New Caledonia	2 529	2 914	2 978	3 081	3 107	2.9	0.4	0.7	0.8
Niue									
Northern Mariana Is.									
Palau	77	72	79	84	89	-1.2	1.8	1.3	5.0
Papua New Guinea	3 286	4 961	5 708	6 473	6 712	8.6	2.8	2.5	3.7
Samoa	112	118	141	172	178	1.1	3.7	3.9	4.0
Solomon Islands	208	267	234	252	264	5.1	-2.6	1.5	5.0
Tonga	124	148	161	180	184	3.6	1.7	2.3	1.9
Tuvalu	10	11	12	16	16	3.0	1.9	5.7	1.0
Vanuatu	153	191	223	227	234	4.5	3.1	0.4	3.4
ESCAP Developed Economies									
Australia	319 140	374 948	453 889	533 625	555 991	3.3	3.9	3.3	4.2
Japan	3 018 112	3 252 650	3 413 333	3 666 229	3 764 172	1.5	1.0	1.4	2.7
New Zealand	43 898	51 158	58 053	69 108	70 032	3.1	2.6	3.5	1.3
ESCAP	5 821 270	6 656 993	7 712 098	9 510 714	10 054 994	2.7	3.0	4.3	5.7
LLDC	69 193	48 522	56 458	84 596	94 153	-6.9	3.1	8.4	11.3
LDC	47 899	59 056	76 656	107 020	114 092	4.3	5.4	6.9	6.6
SIDS	48 413	71 051	93 297	111 997	120 041	8.0	5.6	3.7	7.2
ASEAN	353 974	511 430	578 946	735 773	778 856	7.6	2.5	4.9	5.9
SAARC	432 761	551 289	714 073	983 624	1 069 326	5.0	5.3	6.6	8.7
Central Asia	68 181	40 769	48 051	73 420	82 535	-9.8	3.3	8.8	12.4
Low-income	476 157	592 822	763 592	1 054 049	1 143 834	4.5	5.2	6.7	8.5
Middle-income	1 575 340	1 829 542	2 335 348	3 333 286	3 617 837	3.0	5.0	7.4	8.5
High-income	3 769 653	4 234 514	4 613 038	5 123 238	5 293 180	2.4	1.7	2.1	3.3
Africa	514 193	556 128	663 295	838 877	883 353	1.6	3.6	4.8	5.3
Latin America & Carib.	1 154 384	1 355 901	1 586 011	1 785 505	1 875 204	3.3	3.2	2.4	5.0
North America	6 342 977	7 144 017	8 749 387	9 858 966	10 190 059	2.4	4.1	2.4	3.4
Europe	7 836 424	8 352 366	9 601 658	10 436 909	10 734 409	1.3	2.8	1.7	2.9
Other Asia-Pacific	460 587	598 162	753 677	905 171	956 102	5.4	4.7	3.7	5.6
World	22 133 532	24 663 344	29 066 127	33 336 142	34 694 120	2.2	3.3	2.8	4.1

14.2 GDP per capita

	GDP per capita						Average annual GDP per capita growth rate			
	1990 US dollars					2000 PPP dollars	Percentage			
	1990	1995	2000	2005	2006	2006	90-95	95-00	00-05	2006
East and North-East Asia										
China	352	594	859	1 310	1 441	6 621	11.0	7.6	8.8	10.0
DPR Korea	730	553	503	526	527		-5.4	-1.9	0.9	0.1
Hong Kong, China	13 311	16 275	17 956	20 930	22 124	32 901	4.1	2.0	3.1	5.7
Macao, China	8 035	9 665	8 826	14 606	16 873	37 821	3.8	-1.8	10.6	15.5
Mongolia	567	455	507	642	637	2 034	-4.3	2.1	4.9	-0.8
Republic of Korea	6 153	8 536	10 174	12 397	12 969	20 572	6.8	3.6	4.0	4.6
South-East Asia										
Brunei Darussalam	13 391	12 656	12 718	12 570	12 763		-1.1	0.1	-0.2	1.5
Cambodia	175	204	257	364	384	2 629	3.1	4.8	7.2	5.4
Indonesia	688	928	898	1 058	1 104	3 570	6.2	-0.7	3.3	4.3
Lao PDR	212	252	305	382	403	2 013	3.5	3.9	4.6	5.5
Malaysia	2 432	3 361	3 758	4 246	4 417	10 091	6.7	2.3	2.5	4.0
Myanmar	129	159	225	393	417		4.3	7.1	11.8	6.1
Philippines	724	719	776	879	908	4 731	-0.1	1.5	2.5	3.3
Singapore	12 234	16 329	19 260	21 742	23 164	28 305	5.9	3.4	2.5	6.5
Thailand	1 572	2 244	2 176	2 683	2 797	8 065	7.4	-0.6	4.3	4.3
Timor-Leste	242	262	225	181	171		1.6	-3.0	-4.3	-5.7
Viet Nam	98	131	170	227	241	2 925	6.0	5.3	6.0	6.3
South and South-West Asia										
Afghanistan	286	166	122	183	196		-10.4	-5.9	8.4	6.8
Bangladesh	282	314	369	440	461	1 916	2.2	3.3	3.6	4.7
Bhutan	509	662	835	1 055	1 124	4 930	5.4	4.7	4.8	6.5
India	381	442	534	687	739	3 308	3.0	3.9	5.2	7.6
Iran (Islamic Rep. of)	1 595	1 721	1 975	2 443	2 543	7 405	1.5	2.8	4.3	4.1
Maldives	997	1 203	1 630	1 927	2 306		3.8	6.3	3.4	19.7
Nepal	184	209	235	245	245	1 379	2.6	2.3	0.8	-0.1
Pakistan	506	558	564	682	716	2 206	2.0	0.2	3.9	5.1
Sri Lanka	479	592	732	871	932	4 391	4.3	4.3	3.5	7.0
Turkey	2 628	2 813	3 142	3 626	3 796	7 842	1.4	2.2	2.9	4.7
North and Central Asia										
Armenia	609	353	475	1 010	1 184	5 011	-10.3	6.1	16.3	17.3
Azerbaijan	903	350	471	864	1 154	5 953	-17.3	6.1	12.9	33.6
Georgia	1 563	479	674	1 016	1 118	3 304	-21.1	7.1	8.6	10.0
Kazakhstan	1 794	1 144	1 377	2 218	2 436	7 652	-8.6	3.8	10.0	9.9
Kyrgyzstan	152	288	203	233	237	1 749	13.6	-6.7	2.7	1.6
Russian Federation	3 833	2 372	2 597	3 583	3 843	10 350	-9.2	1.8	6.6	7.2
Tajikistan	541	189	177	265	279	1 257	-19.0	-1.3	8.4	5.6
Turkmenistan	837	462	536	617	664		-11.2	3.0	2.9	7.5
Uzbekistan	717	521	585	713	766	1 942	-6.2	2.4	4.0	7.4
Pacific										
American Samoa										
Cook Islands	3 293	3 796	4 862	6 752	7 046		2.9	5.1	6.8	4.4
Fiji	1 848	1 978	2 104	2 296	2 359	5 529	1.4	1.2	1.8	2.7
French Polynesia	14 995	14 572	15 635	17 006	17 327		-0.6	1.4	1.7	1.9
Guam										
Kiribati	396	448	546	579	574	4 589	2.5	4.0	1.2	-0.9
Marshall Islands	1 453	1 498	1 136	1 134	1 154		0.6	-5.4	0.0	1.8
Micronesia (F.S.)	1 512	1 652	1 545	1 535	1 517	6 314	1.8	-1.3	-0.1	-1.2
Nauru	5 588	3 643	2 989	3 009	3 003		-8.2	-3.9	0.1	-0.2
New Caledonia	14 786	15 092	13 849	13 157	13 057		0.4	-1.7	-1.0	-0.8
Niue										
Northern Mariana Is.										
Palau	5 150	4 236	4 097	4 190	4 378		-3.8	-0.7	0.4	4.5
Papua New Guinea	795	1 054	1 061	1 066	1 082	2 322	5.8	0.1	0.1	1.5
Samoa	694	702	797	933	963	5 597	0.2	2.6	3.2	3.1
Solomon Islands	664	738	562	533	546	1 858	2.1	-5.3	-1.1	2.5
Tonga	1 309	1 519	1 644	1 816	1 842	7 403	3.0	1.6	2.0	1.4
Tuvalu	1 012	1 129	1 195	1 536	1 545		2.2	1.1	5.2	0.6
Vanuatu	1 023	1 109	1 173	1 052	1 061	3 073	1.6	1.1	-2.2	0.9
ESCAP Developed Economies										
Australia	18 914	20 748	23 716	26 274	27 081	30 678	1.9	2.7	2.1	3.1
Japan	24 431	25 923	26 869	28 666	29 418	27 992	1.2	0.7	1.3	2.6
New Zealand	12 871	13 926	15 063	16 868	16 918	23 109	1.6	1.6	2.3	0.3
ESCAP	1 777	1 883	2 043	2 383	2 492	6 156	1.2	1.6	3.1	4.6
LLDC	693	434	471	647	707	3 036	-9.0	1.7	6.6	9.3
LDC	238	259	305	388	406	1 911	1.7	3.3	4.9	4.7
SIDS	4 756	6 151	7 220	7 798	8 202	11 698	5.3	3.3	1.6	5.2
ASEAN	805	1 065	1 115	1 322	1 381	4 707	5.8	0.9	3.5	4.5
SAARC	381	435	512	648	693	3 027	2.7	3.3	4.8	7.0
Central Asia	1 023	587	674	989	1 101	3 811	-10.5	2.8	8.0	11.4
Low-income	367	411	481	612	654	2 965	2.2	3.2	4.9	6.8
Middle-income	883	969	1 179	1 621	1 747	6 594	1.9	4.0	6.6	7.8
High-income	19 193	20 857	22 102	24 065	24 787	26 673	1.7	1.2	1.7	3.0
Africa	834	791	835	940	967	2 328	-1.0	1.1	2.4	2.9
Latin America & Carib.	2 604	2 808	3 039	3 207	3 325	7 951	1.5	1.6	1.1	3.7
North America	22 341	23 840	27 717	29 674	30 369	37 399	1.3	3.1	1.4	2.3
Europe	13 686	14 421	16 531	17 783	18 262	22 905	1.1	2.8	1.5	2.7
Other Asia-Pacific	3 689	3 879	5 773	6 198	6 410		1.0	8.3	1.4	3.4
World	4 180	4 312	4 746	5 117	5 262	8 862	0.6	1.9	1.5	2.8

14.3 Domestic investment

	Gross domestic investment rate (% of GDP)					Average annual gross domestic investment growth rate (Percentage)				
	1990	1995	2000	2005	2006	90-95	95-00	00-05	05-06	90-06
East and North-East Asia										
China	34.9	40.3	35.3	42.6	42.9	2.9	-2.6	3.8	0.6	1.3
DPR Korea										
Hong Kong, China	27.4	34.1	27.5	20.6	21.6	4.4	-4.2	-5.6	5.2	-1.5
Macao, China	24.4	29.5	11.6	27.3	34.2	3.8	-17.0	18.7	25.0	2.1
Mongolia	33.4	29.6	33.2	42.1	40.7	-2.4	2.3	4.9	-3.3	1.2
Republic of Korea	37.5	37.7	31.0	30.1	29.6	0.1	-3.8	-0.6	-1.8	-1.5
South-East Asia										
Brunei Darussalam	14.3	27.4	13.1	11.4	13.3	13.9	-13.7	-2.7	17.0	-0.4
Cambodia	8.3	13.4	16.9	19.7	19.3	10.0	4.7	3.1	-1.9	5.4
Indonesia	42.4	44.1	22.2	22.2	24.6	0.8	-12.8	0.0	10.4	-3.4
Lao PDR	11.3	11.3	10.4	32.0	30.7	0.1	-1.7	25.2	-3.8	6.5
Malaysia	32.4	43.6	27.3	19.9	20.0	6.2	-9.0	-6.1	0.5	-3.0
Myanmar	13.4	14.2	12.4	12.6	15.2	1.3	-2.7	0.3	20.8	0.8
Philippines	24.2	22.5	19.5	15.1	14.8	-1.4	-2.8	-4.9	-2.3	-3.0
Singapore	36.4	34.2	33.3	19.0	18.8	-1.3	-0.5	-10.6	-1.2	-4.0
Thailand	41.3	42.1	22.8	31.5	27.9	0.4	-11.5	6.6	-11.4	-2.4
Timor-Leste	35.0	35.0	25.6	19.1	19.0	0.0	-6.1	-5.6	-0.7	-3.7
Viet Nam	14.4	27.1	29.6	35.4	34.7	13.6	1.8	3.7	-2.2	5.7
South and South-West Asia										
Afghanistan	13.4	13.1	12.9	21.3	17.3	-0.3	-0.3	10.5	-18.8	1.6
Bangladesh	16.4	20.0	23.1	24.9	25.6	4.0	2.9	1.5	2.8	2.8
Bhutan	36.3	48.6	47.4	51.4	53.5	6.0	-0.5	1.6	4.2	2.5
India	27.9	29.3	24.3	31.0	32.2	1.0	-3.7	5.0	4.1	0.9
Iran (Islamic Rep. of)	34.8	30.5	34.5	29.6	27.9	-2.6	2.5	-3.0	-5.7	-1.4
Maldives	31.5	31.3	26.3	61.3	55.6	-0.1	-3.4	18.4	-9.3	3.6
Nepal	18.4	25.2	24.3	28.9	30.3	6.4	-0.7	3.5	4.8	3.1
Pakistan	20.4	20.4	17.0	20.0	20.5	0.0	-3.6	3.3	2.3	0.0
Sri Lanka	20.5	25.3	25.4	26.2	26.7	4.3	0.1	0.6	2.2	1.7
Turkey	24.3	25.5	24.5	24.8	24.2	0.9	-0.8	0.2	-2.2	0.0
North and Central Asia										
Armenia	47.2	18.4	18.6	29.7	32.8	-17.1	0.2	9.8	10.6	-2.2
Azerbaijan	26.5	23.8	20.7	41.5	31.6	-2.2	-2.8	15.0	-24.0	1.1
Georgia	30.6	24.0	26.6	28.6	28.0	-4.7	2.0	1.5	-2.2	-0.6
Kazakhstan	46.7	23.3	18.1	31.0	30.7	-13.0	-4.9	11.3	-0.9	-2.6
Kyrgyzstan	24.1	18.3	20.0	16.4	21.1	-5.3	1.8	-3.9	28.8	-0.8
Russian Federation	30.1	25.4	18.7	20.1	20.2	-3.3	-6.0	1.5	0.5	-2.5
Tajikistan	12.3	28.7	9.4	11.6	11.3	18.4	-20.0	4.4	-3.2	-0.6
Turkmenistan	40.1	33.6	35.4	23.0	23.9	-3.5	1.1	-8.2	4.1	-3.2
Uzbekistan	32.2	24.2	19.6	23.0	22.6	-5.5	-4.2	3.3	-2.0	-2.2
Pacific										
American Samoa										
Cook Islands	21.0	13.6	10.9	10.5	11.0	-8.3	-4.3	-0.8	4.7	-4.0
Fiji	18.3	13.6	17.2	19.0	20.1	-5.8	4.9	2.0	5.5	0.6
French Polynesia	20.0	15.3	13.2	12.9	13.0	-5.3	-2.9	-0.4	0.4	-2.7
Guam										
Kiribati	93.1	53.3	43.2	43.7	43.6	-10.6	-4.1	0.2	-0.1	-4.6
Marshall Islands	88.4	56.3	56.8	56.8	56.8	-8.6	0.2	0.0	0.0	-2.7
Micronesia (F.S.)	37.7	37.7	37.7	37.7	37.7	0.0	0.0	0.0	0.0	0.0
Nauru	93.1	53.3	43.2	43.7	43.6	-10.6	-4.1	0.2	-0.1	-4.6
New Caledonia	23.3	24.1	24.2	24.2	24.2	0.7	0.1	0.0	0.0	0.2
Niue										
Northern Mariana Is.										
Palau	22.0	19.5	29.3	18.6	21.1	-2.4	8.6	-8.8	13.5	-0.3
Papua New Guinea	24.0	21.9	21.3	18.9	18.3	-1.8	-0.6	-2.3	-3.4	-1.7
Samoa	22.9	19.6	14.2	10.4	9.8	-3.1	-6.3	-6.0	-5.9	-5.2
Solomon Islands	20.1	19.2	19.6	19.6	19.6	-1.0	0.5	0.0	0.0	-0.2
Tonga	18.5	22.2	19.2	15.8	13.5	3.7	-2.9	-3.8	-14.5	-2.0
Tuvalu	93.1	56.3	54.7	55.8	55.7	-9.6	-0.6	0.4	-0.2	-3.2
Vanuatu	43.2	31.9	22.1	20.4	20.2	-5.9	-7.0	-1.6	-1.2	-4.6
ESCAP Developed Economies										
Australia	23.3	22.8	22.1	26.7	26.8	-0.4	-0.7	3.8	0.6	0.9
Japan	33.1	28.4	25.2	23.2	23.8	-3.0	-2.4	-1.6	2.7	-2.0
New Zealand	20.1	23.3	21.6	24.8	24.3	3.1	-1.5	2.8	-1.8	1.2
ESCAP	31.8	30.2	26.4	28.0	28.6	-1.0	-2.7	1.2	2.2	-0.7
LLDC	35.9	23.3	20.5	29.8	28.8	-8.3	-2.6	7.8	-3.3	-1.4
LDC	16.1	19.0	21.2	23.8	24.2	3.5	2.2	2.3	1.8	2.6
SIDS	33.4	32.0	31.6	19.3	19.0	-0.8	-0.3	-9.4	-1.2	-3.4
ASEAN	36.5	38.7	24.6	23.1	23.1	1.2	-8.7	-1.3	0.0	-2.8
SAARC	25.7	26.9	23.3	29.1	30.2	0.9	-2.9	4.6	3.7	1.0
Central Asia	37.7	24.0	20.7	29.9	28.9	-8.6	-2.9	7.6	-3.1	-1.6
Low-income	24.7	26.3	22.8	28.7	29.7	1.2	-2.8	4.7	3.4	1.1
Middle-income	32.8	35.3	29.6	33.3	33.1	1.5	-3.4	2.4	-0.7	0.0
High-income	32.3	29.0	25.6	24.3	24.8	-2.2	-2.4	-1.1	2.1	-1.6
Africa	19.1	18.6	17.4	20.0	20.7	-0.5	-1.3	2.8	3.8	0.5
Latin America & Carib.	20.9	21.3	20.9	20.8	19.2	0.3	-0.3	-0.1	-7.8	-0.6
North America	18.0	18.2	20.5	19.5	19.8	0.3	2.4	-1.0	1.4	0.6
Europe	23.1	20.4	21.3	20.4	21.1	-2.5	0.9	-0.9	3.4	-0.6
Other Asia-Pacific	19.5	23.9	21.0	19.8	20.4	4.1	-2.5	-1.2	2.8	0.3
World										

14.4 Value added by sector

	Agriculture					Industry					Services				
	% of total value added					% of total value added					% of total value added				
	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006
East and North-East Asia															
China	26.9	19.8	14.8	12.6	12.8	41.3	47.2	45.9	47.5	46.6	31.8	33.1	39.3	39.9	40.7
DPR Korea	27.4	27.6	30.4	28.1	27.3	54.6	42.0	37.1	39.7	40.2	18.0	30.3	32.4	32.2	32.4
Hong Kong, China	0.2	0.1	0.1	0.1	0.1	24.1	15.2	13.3	9.2	8.5	75.7	84.7	86.6	90.7	91.5
Macao, China	0	0	0	0	0	23.8	15.6	14.8	14.2	12.7	76.2	84.4	85.2	85.8	87.3
Mongolia	15.2	37.6	32.7	21.7	21.0	30.6	27.4	23.2	38.0	26.8	54.3	35.0	44.1	40.2	52.2
Republic of Korea	8.9	6.3	4.9	3.3	3.2	41.6	41.9	40.7	40.3	39.6	49.5	51.8	54.4	56.3	57.2
South-East Asia															
Brunei Darussalam	2.3	2.5	1.0	0.9	1.1	53.6	42.8	63.7	71.6	67.9	44.1	54.7	35.3	27.5	31.0
Cambodia	50.1	51.4	37.9	34.2	29.6	11.7	12.9	23.0	26.7	29.2	38.2	35.7	39.1	39.1	41.2
Indonesia	16.6	14.6	14.9	12.8	13.7	36.8	39.6	43.7	43.6	42.4	46.6	45.7	41.4	43.6	44.0
Lao PDR	61.2	55.0	52.6	44.8	46.8	14.5	19.0	22.9	29.5	27.6	24.3	26.0	24.6	25.7	25.7
Malaysia	15.0	12.7	8.4	8.3	8.8	41.5	40.5	48.4	49.9	50.0	43.5	46.8	43.1	41.8	41.2
Myanmar	57.3	60.0	57.2	53.1	52.6	10.5	9.9	9.7	13.3	13.4	32.2	30.1	33.1	33.6	34.0
Philippines	21.9	21.6	16.0	14.3	14.2	34.5	32.1	31.5	32.2	32.1	43.6	46.3	52.6	53.4	53.7
Singapore	0.3	0.1	0.1	0.1	0.1	32.7	33.7	33.5	32.2	33.0	67.0	66.1	66.4	67.7	66.9
Thailand	14.4	10.8	9.0	10.2	10.7	35.9	40.2	42.0	44.1	44.6	49.7	49.0	49.0	45.7	44.7
Timor-Leste	29.5	29.4	25.8	31.8	32.2	25.4	25.5	18.5	15.2	12.8	45.1	45.1	55.8	53.0	55.0
Viet Nam	38.7	27.2	24.5	20.9	21.7	22.7	28.8	36.7	41.0	40.2	38.6	44.1	38.7	38.1	38.0
South and South-West Asia															
Afghanistan	35.7	65.7	57.0	39.5	42.4	23.7	10.5	23.2	25.3	22.4	40.6	23.8	19.8	35.2	35.2
Bangladesh	30.8	25.7	24.1	19.5	20.2	21.4	24.9	25.9	28.1	27.3	47.7	49.5	50.0	52.4	52.5
Bhutan	39.0	34.0	28.6	23.5	22.2	28.0	34.8	35.7	37.7	39.2	33.0	31.2	35.7	38.7	38.5
India	30.6	27.4	23.7	18.3	19.6	27.3	27.7	26.3	27.6	27.1	42.1	45.0	50.0	54.1	53.3
Iran (Islamic Rep. of)	17.9	18.3	13.3	9.9	10.9	28.2	34.1	36.6	43.1	41.6	53.9	47.6	50.1	47.0	47.5
Maldives	14.9	11.0	8.4	9.7	8.4	12.8	13.0	14.5	17.3	16.8	72.3	76.0	77.1	73.0	74.8
Nepal	50.6	40.8	39.6	38.2	38.1	15.9	22.2	21.5	21.0	20.3	33.5	37.0	38.9	40.8	41.5
Pakistan	24.9	24.7	24.1	20.5	21.6	25.9	24.2	24.0	26.7	26.7	49.2	51.1	51.9	52.9	51.7
Sri Lanka	25.3	20.5	17.6	14.1	14.6	29.8	30.1	29.9	32.6	31.3	44.9	49.4	52.5	53.3	54.1
Turkey	17.6	15.7	14.2	10.5	9.4	32.1	31.9	28.7	30.3	31.6	50.3	52.4	57.1	59.2	59.0
North and Central Asia															
Armenia	17.3	40.8	25.2	20.3	19.2	52.6	31.0	35.0	46.5	47.3	30.1	28.2	39.8	33.2	33.5
Azerbaijan	29.7	26.9	17.0	9.8	7.5	32.9	32.9	45.1	63.2	69.3	37.4	40.3	37.9	27.0	23.2
Georgia	31.5	44.4	21.7	16.5	12.8	34.3	12.7	22.1	26.5	24.6	34.3	43.0	56.1	57.0	62.5
Kazakhstan	33.6	12.8	8.6	6.6	7.5	32.2	31.2	40.1	39.2	37.7	34.2	56.0	51.3	54.2	54.9
Kyrgyzstan	33.7	43.1	36.6	31.3	33.0	37.7	20.1	31.3	22.0	20.1	28.6	36.8	32.1	46.7	46.9
Russian Federation	16.5	7.6	6.7	5.4	4.8	49.1	37.0	37.9	38.5	38.4	34.4	55.5	55.4	56.1	56.8
Tajikistan	30.1	35.9	27.3	23.8	24.1	38.4	36.4	38.4	30.7	34.1	31.5	27.7	34.3	45.6	41.8
Turkmenistan	32.2	16.9	22.9	20.7	20.3	29.6	64.8	41.8	41.5	41.2	38.2	18.3	35.2	37.8	38.5
Uzbekistan	33.2	31.4	34.9	28.1	30.7	34.8	28.1	22.8	28.7	25.8	32.0	40.5	42.3	43.2	43.4
Pacific															
American Samoa															
Cook Islands	11.6	9.7	13.0	12.5	13.6	8.2	7.6	8.1	8.3	8.7	80.2	82.6	78.9	79.2	77.7
Fiji	18.7	18.8	16.5	13.7	14.1	20.4	22.8	21.5	21.0	21.6	60.9	58.3	62.0	65.4	64.3
French Polynesia	4.5	4.1	4.0	3.4	3.5	15.3	13.3	14.5	14.4	14.4	80.2	82.6	81.5	82.1	82.1
Guam															
Kiribati	18.6	20.3	14.7	10.1	9.7	7.6	4.9	8.7	12.3	12.0	73.8	74.8	76.6	77.6	78.3
Marshall Islands	13.9	14.9	10.0	10.0	10.1	12.9	15.0	19.2	19.1	19.2	73.2	70.0	70.8	70.9	70.7
Micronesia (F.S.)	19.2	19.2	19.2	19.2	19.2	4.0	4.0	4.0	4.0	4.0	76.8	76.8	76.8	76.8	76.8
Nauru	18.6	20.3	14.7	10.1	9.7	7.6	4.9	8.7	12.3	12.0	73.8	74.8	76.6	77.6	78.3
New Caledonia	2.0	1.8	2.4	2.4	2.5	24.9	22.0	26.0	23.8	23.7	73.1	76.2	71.6	73.8	73.8
Niue															
Northern Mariana Is.															
Palau	25.9	5.9	4.1	3.3	3.6	15.5	9.4	12.3	19.2	16.5	58.6	84.7	83.6	77.5	79.8
Papua New Guinea	29.7	35.1	31.7	38.2	39.5	31.2	33.3	39.2	36.9	37.1	39.0	31.6	29.1	24.9	23.4
Samoa	20.5	18.4	16.5	12.9	13.0	28.8	29.4	25.6	27.1	27.1	50.6	52.2	57.8	59.9	59.9
Solomon Islands	45.5	44.7	44.5	44.5	44.5	7.9	9.9	10.1	10.1	10.1	46.6	45.3	45.4	45.4	45.4
Tonga	35.1	23.7	28.6	27.9	28.1	14.4	11.1	16.7	15.2	14.9	50.4	65.2	54.6	56.9	57.0
Tuvalu	25.6	24.0	17.3	16.5	16.7	14.5	14.0	13.1	13.7	13.6	59.8	62.0	69.7	69.8	69.7
Vanuatu	20.0	15.6	14.9	14.5	14.4	13.5	11.6	8.9	8.5	8.5	66.5	72.8	76.3	77.0	77.1
ESCAP Developed Economies															
Australia	3.6	3.8	4.0	3.1	3.3	30.1	28.4	26.1	28.0	27.0	66.2	67.8	69.9	68.9	69.8
Japan	2.5	1.9	1.7	1.4	1.6	38.4	33.2	31.1	28.7	28.9	59.2	64.9	67.2	69.9	69.5
New Zealand	6.7	7.2	8.6	7.0	7.0	26.8	25.9	24.4	24.0	24.0	66.6	66.9	66.9	69.0	69.0
ESCAP	9.5	8.3	8.0	7.5	7.9	37.8	36.6	37.3	39.0	38.9	52.8	55.1	54.7	53.5	53.2
LLDC	33.5	36.0	30.7	24.4	25.1	32.1	27.7	27.5	32.1	31.7	34.4	36.3	41.8	43.4	43.3
LDC	36.8	34.1	32.3	29.3	29.8	19.5	21.7	24.0	25.9	25.3	43.7	44.3	43.7	44.8	44.8
SIDS	3.7	3.3	2.7	2.4	2.3	30.4	31.3	32.1	30.2	30.7	65.9	65.5	65.2	67.4	66.9
ASEAN	16.0	12.4	12.2	11.6	11.7	35.8	39.1	40.0	39.1	39.3	48.2	48.5	47.8	49.3	49.0
SAARC	30.0	26.4	23.0	18.8	20.0	26.6	27.5	27.1	27.5	27.1	43.4	46.1	49.9	53.6	52.9
Central Asia	32.2	34.6	28.3	22.6	23.0	33.9	29.7	28.7	34.5	34.0	33.9	35.7	43.0	43.0	43.0
Low-income	22.9	19.6	17.2	14.6	15.3	32.0	33.4	33.5	34.5	34.3	45.1	47.1	49.3	50.9	50.4
Middle-income	19.9	17.3	15.4	13.5	13.7	41.2	44.0	47.7	51.3	51.2	38.9	38.6	36.9	35.3	35.1
High-income	3.0	2.4	2.4	2.1	2.1	37.4	34.3	33.5	33.1	32.8	59.6	63.4	64.2	64.8	65.1
Africa	18.8	18.9	19.7	19.8	20.0	37.5	36.5	36.3	36.5	36.5	43.7	44.6	44.0	43.7	43.5
Latin America & Carib.	7.7	7.5	7.2	7.5	8.0	33.5	34.3	33.9	33.4	34.3	58.7	58.2	58.9	59.1	57.7
North America	2.0	1.8	2.0	2.3	2.2	27.7	27.8	27.1	26.6	26.6	70.3	70.4	70.9	71.1	71.3
Europe	3.9	3.6	3.4	3.1	3.2	33.2	31.6	30.9	30.0	30.3	62.8	64.8	65.8	66.9	66.5
Other Asia-Pacific	5.4	4.5	4.0	3.7	3.6	42.2	40.9	40.4	39.5	40.0	52.4	54.6	55.6	56.9	56.4
World	5.5	5.0	4.8	4.9	5.1	33.1	32.3	31.9	32.1	32.3	61.4	62.7	63.3	63.0	62.6

14.5 Change in value added by sector

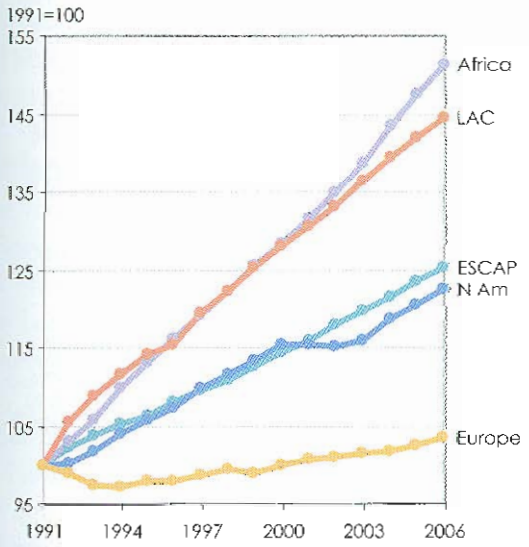
	Average annual growth rate of value added											
	Agriculture Percentage				Industry Percentage				Services Percentage			
	90-95	95-00	00-05	2006	90-95	95-00	00-05	2006	90-95	95-00	00-05	2006
East and North-East Asia												
China	4.2	3.5	3.9	15.6	17.4	9.8	10.8	9.4	5.9	7.4	7.6	13.7
DPR Korea	2.1	1.4	0.2	-1.9	7.7	5.5	6.1	6.4	7.6	4.3	4.0	4.0
Hong Kong, China	-6.5	-8.6	-0.5	-3.2	-4.6	0.8	-3.5	-1.6	7.0	4.0	5.4	8.6
Macao, China					-3.2	-1.8	9.7	1.7	7.6	-0.6	10.7	16.3
Mongolia	-0.5	0.4	-0.4	-2.3	-3.8	0.9	8.0	3.8	-4.9	5.0	9.6	-5.5
Republic of Korea	2.1	1.4	0.2	-1.9	7.7	5.5	6.1	6.4	7.6	4.3	4.0	4.0
South-East Asia												
Brunei Darussalam	1.4	6.4	7.0	-0.3	0.1	2.0	1.3	5.6	4.2	3.6	3.4	1.1
Cambodia	4.4	3.0	6.2	4.0	10.3	17.3	13.9	13.2	5.7	7.3	8.9	5.9
Indonesia	3.1	1.4	3.2	8.3	10.0	1.6	3.8	6.8	7.2	-0.5	6.0	3.6
Lao PDR	4.1	5.2	3.2	11.9	12.2	10.1	12.0	0.3	6.8	6.7	6.6	7.4
Malaysia	-0.2	1.7	3.0	6.4	11.1	6.3	3.8	5.3	11.2	5.7	6.1	6.6
Myanmar	4.6	7.1	11.8	6.9	9.4	12.0	16.1	7.0	5.6	8.4	13.4	6.9
Philippines	1.5	2.2	3.7	4.1	2.1	3.3	3.6	4.8	2.5	4.7	5.8	6.3
Singapore	-2.0	-2.1	-3.4	12.6	9.3	6.6	2.5	9.9	9.1	6.3	4.7	6.7
Thailand	0.9	2.3	2.0	4.4	11.4	0.6	6.3	5.9	8.1	-0.4	4.5	4.2
Timor-Leste	1.1	-0.2	5.3	0.0	6.0	-6.6	-3.7	-15.7	5.4	-3.2	0.5	-0.9
Viet Nam	4.3	4.4	3.8	12.1	12.6	10.9	10.2	5.6	9.2	5.7	6.9	8.1
South and South-West Asia												
Afghanistan	4.0	-7.1	3.2	22.5	-30.8	23.0	11.3	1.8	-0.1	-5.2	26.2	14.3
Bangladesh	1.7	4.9	2.4	9.8	8.1	6.5	7.9	3.6	4.4	5.2	6.0	6.2
Bhutan	0.4	2.9	2.5	1.5	11.8	14.4	9.8	0.3	3.7	10.2	10.5	8.1
India	2.3	2.6	2.4	17.6	6.1	5.3	7.0	7.8	7.0	8.2	8.7	7.9
Iran (Islamic Rep. of)												
Maldives	1.3	2.6	7.5	2.9	7.9	10.5	8.4	15.1	8.7	8.5	3.4	21.2
Nepal	1.5	3.3	3.4	1.7	9.3	6.4	1.2	3.5	7.4	5.7	2.9	2.4
Pakistan	5.4	2.1	3.2	9.8	4.5	3.2	8.0	5.9	5.0	3.4	6.6	5.0
Sri Lanka	2.6	1.9	0.5	12.0	7.7	7.0	3.6	7.1	5.8	5.2	4.7	8.7
Turkey	0.6	1.7	1.0	2.8	3.9	3.4	4.3	8.9	3.3	4.1	3.9	4.2
North and Central Asia												
Armenia	1.7	2.0	8.9	0.4	-19.2	5.3	15.9	22.0	-8.3	4.0	11.4	13.8
Azerbaijan	-15.6	4.0	7.1	0.9	-17.0	16.9	26.6	19.1	-15.9	4.7	6.9	17.0
Georgia	-17.0	-4.4	1.7	-15.2	-36.5	19.4	9.2	1.2	-18.9	9.0	8.8	17.3
Kazakhstan	-11.1	-2.3	5.7	16.0	-17.8	6.1	12.2	8.4	-3.9	1.4	11.1	9.4
Kyrgyzstan	6.8	-7.5	2.6	1.5	28.3	-3.8	1.0	-3.5	14.0	-2.8	5.5	1.5
Russian Federation	-7.7	0.5	6.4	5.8	-13.3	2.2	6.1	6.9	-5.5	1.5	5.4	6.1
Tajikistan	-14.3	-7.3	10.0	8.1	-18.1	-1.1	8.4	10.8	-19.3	2.1	10.1	3.5
Turkmenistan	-20.6	12.1	1.1	6.5	5.8	-3.5	3.0	8.0	-21.9	20.1	4.6	10.9
Uzbekistan	-1.4	-1.3	1.9	16.8	-5.2	-6.6	11.4	-4.0	-15.1	20.1	6.8	7.3
Pacific												
American Samoa												
Cook Islands	-0.3	11.2	4.9	7.6	1.4	8.0	5.7	6.5	4.4	2.3	3.7	0.0
Fiji	0.0	-0.6	0.3	3.9	4.6	2.7	2.7	-10.4	1.9	2.3	3.0	3.6
French Polynesia	-0.4	2.0	-0.2	4.9	-1.4	4.7	2.6	4.0	2.0	2.5	2.9	3.9
Guam												
Kiribati	-2.0	2.9	2.7	-0.2	0.3	17.8	4.6	-2.0	7.4	5.8	-0.5	1.2
Marshall Islands	4.2	-12.5	1.7	4.8	5.9	-0.6	1.7	4.6	1.8	-5.0	1.8	3.7
Micronesia (F.S.)												
Nauru	-12.0	-6.4	-0.1	-1.0	-9.9	7.2	1.8	-2.8	-3.6	-3.8	-3.2	0.4
New Caledonia	0.6	6.0	1.1	1.5	0.3	3.9	-1.4	1.0	3.8	-0.8	1.0	1.2
Niue												
Northern Mariana Is.												
Palau	-26.9	-5.6	-2.3	13.6	-10.8	7.3	11.0	-9.8	6.0	1.4	0.1	7.6
Papua New Guinea	9.1	3.2	0.6	5.1	12.2	2.8	3.5	3.6	4.7	2.3	4.2	3.8
Samoa	2.0	-0.7	-3.0	7.0	0.2	1.7	5.0	5.0	0.7	7.0	5.3	3.0
Solomon Islands	5.4	-4.7	3.4	5.5	8.4	2.8	-7.3	5.0	4.0	-1.7	1.5	4.5
Tonga	3.8	-0.8	2.0	1.5	1.8	1.5	1.9	1.2	9.4	4.2	2.3	2.3
Tuvalu	-0.6	0.2	1.3	3.9	3.4	6.4	5.1	1.1	4.2	8.4	4.3	1.6
Vanuatu	1.4	2.3	1.0	4.1	-0.1	-1.4	-0.3	3.0	9.2	2.4	0.3	3.3
ESCAP Developed Economies												
Australia	1.2	5.2	1.3	4.8	2.2	2.4	2.9	5.1	3.7	4.5	3.7	3.5
Japan	-4.1	1.3	-1.7	8.7	-0.2	0.5	1.2	0.3	3.3	1.3	1.8	2.9
New Zealand	2.3	2.2	0.6	3.2	2.7	1.2	2.6	3.7	3.5	3.4	4.3	0.2
ESCAP	0.2	2.2	2.9	10.3	2.2	3.3	5.0	5.1	3.8	2.7	3.6	4.7
LLDC	-6.2	-0.8	4.1	12.1	-10.3	2.4	12.4	7.7	-6.6	5.4	9.8	8.8
LDC	2.6	4.2	5.1	8.5	6.5	7.6	8.7	4.4	4.5	5.1	7.7	6.8
SIDS	5.4	2.0	0.7	4.8	8.8	6.1	2.5	8.9	8.0	5.5	4.4	6.3
ASEAN	2.2	2.3	3.9	6.8	9.5	3.1	4.4	6.5	7.7	2.3	5.6	5.2
SAARC	2.6	2.7	2.5	15.6	5.9	5.2	7.1	7.2	6.4	7.2	8.2	7.5
Central Asia	-9.3	-1.3	4.3	11.8	-12.9	2.0	13.2	8.2	-9.6	6.5	9.1	9.9
Low-income	2.5	2.5	2.6	13.0	6.6	5.2	6.7	6.7	6.6	6.1	6.7	6.3
Middle-income	-0.2	2.2	4.1	10.2	4.0	6.3	8.5	8.4	2.5	3.7	6.0	7.9
High-income	-2.1	1.8	-0.7	5.4	0.7	1.2	1.9	1.7	3.7	2.0	2.3	3.3
Africa	1.5	4.7	4.7	7.0	0.9	3.8	4.7	5.3	1.9	3.6	4.5	4.9
Latin America & Carib.	2.2	2.3	3.2	13.7	3.3	2.9	2.0	9.1	2.6	3.4	2.4	3.7
North America	0.6	6.0	4.2	-2.7	2.3	3.9	0.5	3.1	2.3	4.6	1.0	3.3
Europe	-0.5	1.6	0.2	4.0	0.4	2.3	1.1	4.1	2.0	3.2	2.1	2.4
Other Asia-Pacific	0.9	2.4	1.9	5.1	4.3	4.4	3.2	7.1	5.8	5.0	4.1	4.8
World	0.3	2.8	2.7	7.3	1.6	3.1	2.4	4.6	2.6	3.6	2.2	3.4

15. Employment

The strong economic expansion that the Asian and Pacific region has experienced since the beginning of the new millennium has not been met by comparable dynamism in labour demand.

Employment has grown at an average annual rate of 1.5 per cent over the past 15 years, with little variation. This rate compares unfavourably with other developing regions, in which employment has grown at nearly double the pace of Asia and the Pacific since 1991. For example, in Africa the annual rate is 2.8 per cent, and in Latin America and the Caribbean it is 2.5 per cent.

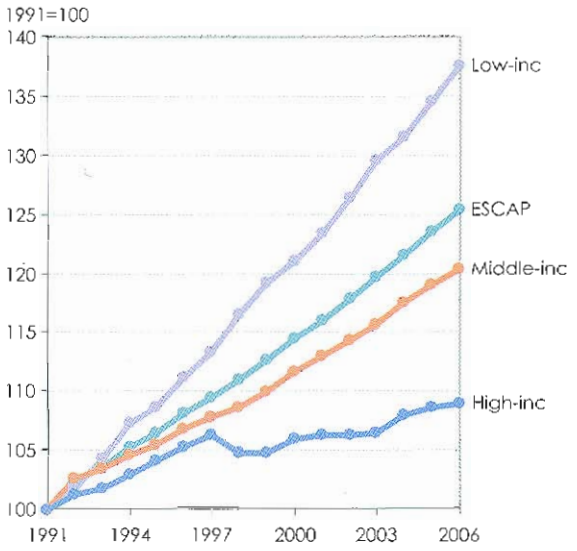
Figure 15.1 Index of change in the employment level for the regions of the world, 1991-2006



The total number of workers in least developed countries, landlocked developing countries and small island developing States has increased four times as rapidly as in high-income countries during the last 15 years. This is in line with evidence that when the economy grows and per capita income rises, the average annual growth rate of employment drops. Between 2000 and 2005, the four highest growth rates — all above 5 per cent — were found in Afghanistan, Bhutan, Maldives and Timor-Leste, all of which are least developed countries.

Labour demand in the ASEAN and SAARC regions has also expanded rapidly, at about 2 per cent between 1991 and 2006. Central Asian countries, on the other hand, experienced a moderate overall growth during the same period, at 1.3 per cent, as a result of poor performance in the 1990s. In Armenia, Georgia and Kazakhstan, for instance, employment contracted over the last 10-15 year period. Most of the growth in employment in this

Figure 15.2 Index of change in the employment level in selected Asian and Pacific country/area groupings, 1991-2006



subregion has taken place during the last six years, when many Central Asian countries expanded rapidly.

Two main, partly interrelated, factors explain the relative weak employment growth in Asia and the Pacific: a large structural adjustment in the sectoral composition of employment and an impressive long-term increase in labour productivity.

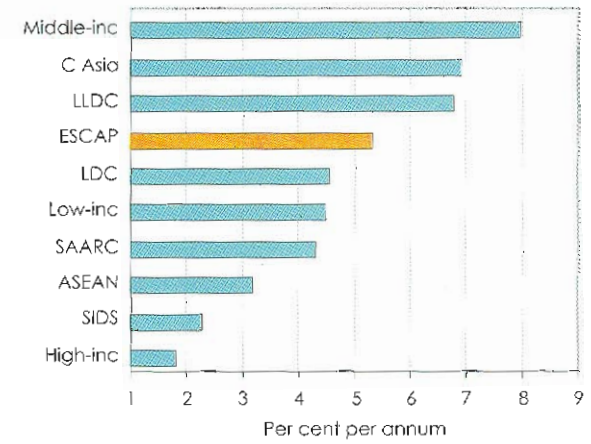
Data on the sectoral composition of employment in Asia and the Pacific is patchy. From the data that is available, though, it is clear that the share of employment in agriculture has declined over the past 15 years in countries as diverse as those that are members of ASEAN and those that belong to the high-income group, whereas employment in industry and, especially, services increased.

This movement of workers from low to higher productivity activities has, by itself, caused an increase in the value added per worker. The other driving force behind the remarkable growth in labour productivity is a large accumulation of machinery and equipment and the introduction of new technologies. This shift from labour-intensive to capital-intensive production processes in the Asia and the Pacific has allowed for a substantial expansion of output with only a moderate increase in the number of workers, especially in the manufacturing sector.

Asia and the Pacific experienced the highest growth in labour productivity between 2000 and 2005, by 5.4 per cent. Africa had the second highest growth rate, at 1.8 per cent, followed closely by

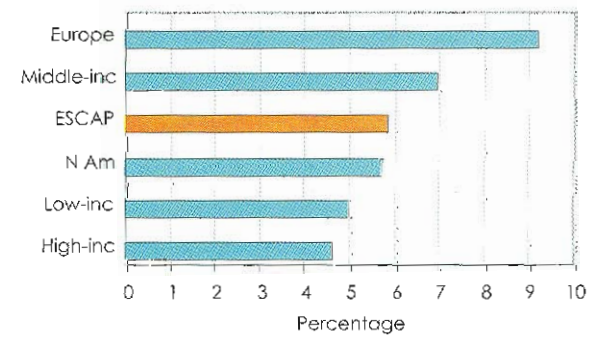
North America and Europe. Labour productivity in Latin America and the Caribbean, on the other hand, grew by a scant 0.5 per cent during the same period. Within Asia and the Pacific, Central Asian and landlocked developing countries had the highest growth in labour productivity, at about 7 per cent, but labour productivity in small island developing States grew at only 2.3 per cent.

Figure 15.3 Labour productivity increase in selected Asian and Pacific country/area groupings, 2000-2005



There is limited data on unemployment. In 2004, the unemployment rate in Asia and the Pacific was 5.8 per cent. In the same year, North America had an unemployment rate of 5.7 per cent, and Europe maintained a high rate of 9.2 per cent. Low-income and high-income countries have lower unemployment rates than middle-income countries.

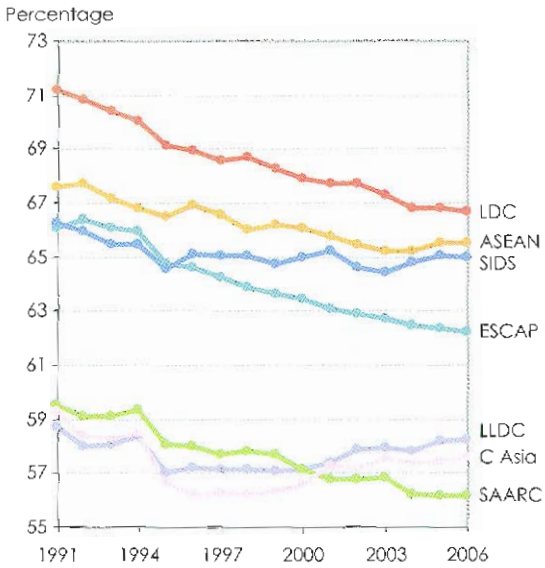
Figure 15.4 Unemployment rate in selected Asian and Pacific country/area groupings, North America, and Europe, 2004



In the absence of complete unemployment data, the employment to working age population ratio can shed some light on labour market dynamics. While the demand for labour has not increased, the "potential" labour supply in Asia and the Pacific continues to grow. The data need to be interpreted with caution, however, as a fall in this ratio may also mean that more young people (aged 15-24) stay in school.

Over the last 15 years, the employment to population ratio has declined by about 4 percentage points in the Asian and Pacific region, whereas it has only marginally decreased in Africa, and increased by 2 percentage points in Latin America and the Caribbean. Least developed countries and the SAARC region have experienced declines of over 3 percentage points, whereas landlocked developing countries and small island developing States have experienced smaller declines, by less than 1 percentage point.

Figure 15.5 Employment to population ratio in selected Asian and Pacific country/area groupings, 1991-2006



This reduction has affected most countries in Asia and the Pacific. A few countries and areas, however, have seen a considerable increase, by over 7 percentage points, in the employment to population ratio, such as in Maldives and in Macao, China, both with over 15 per cent economic growth in 2006. Overall, the employment to working age population ratio in Asia and the Pacific is still higher than in any other region in the world.

Asia and the Pacific has the second highest ratio of working age women employed, 48.9 per cent, behind only North America, 53.9 per cent (in 2006). The lowest ratio of employed to working age women — 42.1 per cent — is recorded in Europe. When it comes to men of working age, Africa and Europe have about 75 per cent employed, followed closely by Latin America and the Caribbean. In Asia and the Pacific, the figure is just above 70 per cent.

The SAARC region is an exception in Asian and Pacific region with regard to the ratio of employed to working age women; whereas in other

Figure 15.6 Employment to population ratio by gender for the regions of the world, 2006

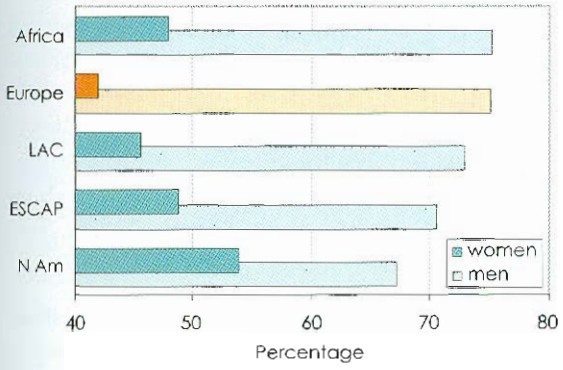
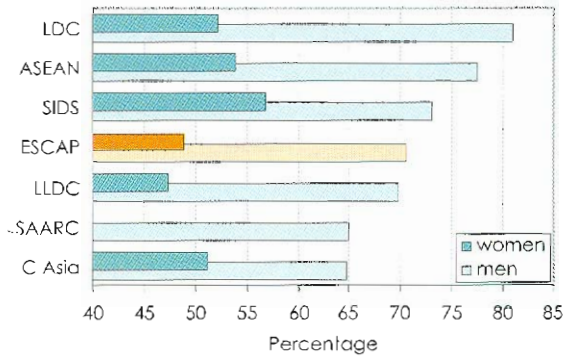


Figure 15.7 Employment to population ratio by gender in selected Asian and Pacific country/area groupings, 2006



parts of Asia and the Pacific, half or more of the women of working age are employed, this is not the case in the SAARC region, where the ratio has gradually fallen, reaching 34 per cent in 2006. In such countries as Afghanistan, India, Pakistan and Sri Lanka, the ratio of employed to working age women is 30 per cent or only slightly above.

The women to men employment ratio demonstrates the gender-bias in employment even more vividly. In Asia and the Pacific, this ratio has declined slightly, to 64 per cent in 2006 compared with 66 per cent in 1990. The region is ahead of only Latin America and the Caribbean, which registers a ratio of 60.8 per cent. Africa, with 66 per cent, is the leading developing region in equal gender participation in the labour market. Europe and North America fall short of equality but still have ratios that are quite high, at 78.4 per cent and 84.9 per cent, respectively.

Among groups of countries within the Asian and Pacific region, the highest women to men employment ratio occurs in Central Asia, at 85.5 per cent. In the SAARC region, this ratio is about 40 per cent, reiterating the low level of employment among women in the countries of this region. The middle-income countries in Asia and the Pacific record the highest women to men employment ratio, approaching European figures. The high-income countries follow closely, at just above 70 per cent, whereas low-income countries remain far behind, at about 46 per cent.

The limited available data shows that women are underrepresented in non-agricultural activities, which tend to have higher returns and labour productivity, with the exceptions of Mongolia and the Russian Federation. The difference is much more striking in the women to men employer ratio, which goes down to 1.6 per cent in Pakistan and 4.7 per cent in Turkey for 2005. The highest ratio among Asian and Pacific countries for which data exists is in the Russian Federation, at about 66 per cent.

Total employment (thousands): The number of persons of working age who, during a specified brief period, either one week or one day, were in either paid employment or self-employment. *Aggregates:* Sum of individual country values. *Source:* International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Average annual employment growth rate (percentage): The average annual rate of change of total employment. *Aggregates:* Averages are calculated using total employment as weight. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Average annual labour productivity growth rate (percentage): The output (measured as value added in 1990 PPP dollars) divided by the total number of employed persons, expressed as the average annual rate of change. *Aggregates:* Averages are calculated using total employment as weight. *Source:* International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Employment in agriculture (percentage of total employment): The proportion of employment in agriculture, hunting, forestry and fishing of total employment, expressed as a percentage. *Aggregates:* Averages are calculated using total employment as weight. Missing data for employment in agriculture have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market Fifth Edition* (online database, accessed in September 2007).

Employment in industry (percentage of total employment): The proportion of employment in mining and quarrying, manufacturing, construction and public utilities

(electricity, gas and water) of total employment, expressed as a percentage. *Aggregates:* Averages are calculated using total employment as weight. Missing data for employment in industry have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Employment in services (percentage of total employment): The proportion of employment in wholesale and retail trade, restaurants and hotels, transport, storage and communications, finance, insurance, real estate and business services, and community, social and personal services, of total employment, expressed as a percentage. *Aggregates:* Averages are calculated using total employment as weight. Missing data for employment in services have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Employment to population ratio (percentage of population aged 15 and above): The proportion of the working-age population that is employed. For most countries, the working-age population is defined as persons aged 15 and above, although this may vary slightly from country to country. *Aggregates:* Averages are calculated using total population aged 15 and above as weight. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online publication, accessed in September 2007, accessed in September 2007) and *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Female employment to population ratio (percentage of women aged 15 and above): The proportion of the working-age female population that is employed. For most countries, the working-age population is defined as persons aged 15 and above, although this may vary slightly from country to country. *Aggregates:* Averages are calculated using total female aged 15 and above as weight. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online publication, accessed in September 2007) and *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Male employment to population ratio (percentage of men aged 15 and above): The proportion of the working-age male population that is employed. For most countries, the working-age population is defined as persons aged 15 and above, although this may vary slightly from country to country. *Aggregates:* Averages are calculated using total male population aged 15 and above as weight. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online publication, accessed in September 2007) and *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Unemployment rate (percentage of labour force): The number of persons of working age who, during the reference period, were without work, currently available for work and seeking work, divided by the total labour force. National definitions and coverage of unemployment may vary. *Aggregates:* Averages are calculated using total labour force as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Female unemployment rate (percentage of female labour force): The number of females of working age who, during the reference period, were without work, currently available for work and seeking work, divided by the total female labour force. National definitions and coverage of unemployment may vary. *Aggregates:* Averages are calculated using total female labour force as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Male unemployment rate (percentage of male labour force): The number of males of working age who, during the reference period, were without work, currently available for work and seeking work, divided by the total male labour force. National definitions and coverage of unemployment may vary. *Aggregates:* Averages are calculated using total male labour force as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Youth unemployment rate (percentage of labour force aged 15-24): The number of young persons aged 15-24 who are without work, currently available for work and seeking work, divided by the total labour force of that age group. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Female youth unemployment rate (percentage of women labour force aged 15-24): The number of young females aged 15-24 years who are without work, currently available for work and seeking work, divided by the total female labour force of that age group. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Employees (percentage of total employment): The number of employees divided by the total employment, expressed as a percentage. *Aggregates:* Averages are calculated using total employment as weight. Missing data for employees have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Employers (percentage of total employment): The number of employers divided by the total employment, expressed as a percentage. *Aggregates:* Averages are calculated using total

employment as weight. Missing data for employers have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Other self-employed (percentage of total employment): The number of own-account workers, members of producer's cooperatives, and contributing family workers divided by the total employment, expressed as a percentage. *Aggregates:* Averages are calculated using total employment by as weight. Missing data for other self-employed have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Women to men ratio in employment (percentage): The number of employed women divided by the number of employed men, expressed as a percentage. *Aggregates:* Averages are calculated using total male employment as weight. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Women to men ratio in non-agricultural sector employment (percentage): The number of employed women divided by the number of employed men in sectors other than agriculture, expressed as a percentage. *Aggregates:* Averages are calculated using total male employment in non-agriculture as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

Women to men employers ratio (percentage): The number of female employers divided by the number the male employers, expressed as a percentage. *Aggregates:* Averages are calculated using the total number of male employers as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from International Labour Organization, *Key Indicators of the Labour Market, Fifth Edition* (online database, accessed in September 2007).

15.1 Employment and labour productivity

	Total employment (Thousands)					Average annual employment growth rate (Percentage)				Average annual labour productivity growth rate (% (1990 PPP dollars))		
	1991	1995	2000	2005	2006	91-95	95-00	00-05	2006	91-95	95-00	00-05
East and North-East Asia												
China	632 397	669 398	702 909	740 393	747 178	1.4	1.0	1.0	0.9	10.0	3.4	10.4
DPR Korea	9 624	10 077	10 277	10 706	10 802	1.2	0.4	0.8	0.9			
Hong Kong, China	2 860	2 984	3 210	3 480	3 549	1.1	1.5	1.6	2.0	4.1	1.4	3.1
Macao, China	160	176	207	257	265	2.4	3.3	4.4	3.1			
Mongolia	657	846	907	1 068	1 106	6.5	1.4	3.3	3.6			
Republic of Korea	19 101	20 852	21 511	23 239	23 504	2.2	0.6	1.6	1.1	5.0	3.6	2.9
South-East Asia												
Brunei Darussalam	109	122	140	156	160	2.9	2.8	2.2	2.6			
Cambodia	4 331	4 761	5 651	6 625	6 819	2.4	3.5	3.2	2.9	-1.0	5.7	-1.2
Indonesia	75 848	82 659	93 651	98 550	100 060	2.2	2.5	1.0	1.5	6.3	-1.6	3.5
Lao PDR	1 517	1 698	1 941	2 251	2 322	2.9	2.7	3.0	3.2			
Malaysia	7 120	8 041	9 582	10 893	11 185	3.1	3.6	2.6	2.7	6.6	0.8	2.8
Myanmar	19 729	21 486	23 887	26 031	26 388	2.2	2.1	1.7	1.4	5.0	5.3	8.5
Philippines	21 973	25 158	27 715	34 425	35 570	3.4	2.0	4.4	3.3	0.0	2.3	0.9
Singapore	1 566	1 693	1 963	2 115	2 146	2.0	3.0	1.5	1.5	6.4	2.0	2.3
Thailand	30 685	31 667	33 270	35 625	35 989	0.8	1.0	1.4	1.0	7.4	0.2	3.0
Timor-Leste	284	304	258	388	411	1.7	-3.2	8.5	5.9			
Viet Nam	31 298	34 674	38 993	43 966	45 000	2.6	2.4	2.4	2.4	6.3	4.2	4.8
South and South-West Asia												
Afghanistan	4 044	5 425	6 128	7 821	8 096	7.6	2.5	5.0	3.5			
Bangladesh	50 460	54 170	60 263	66 413	67 930	1.8	2.2	2.0	2.3	2.8	2.9	3.3
Bhutan	170	154	182	251	269	-2.4	3.4	6.6	7.2			
India	321 546	348 478	386 323	424 143	432 431	2.0	2.1	1.9	2.0	4.9	4.0	4.9
Iran (Islamic Rep. of)	14 818	16 154	20 229	24 785	25 781	2.2	4.6	4.1	4.0	-1.0	-0.7	3.0
Maldives	59	70	88	114	121	4.4	4.7	5.3	6.1			
Nepal	6 717	7 345	8 421	9 561	9 833	2.3	2.8	2.6	2.8			
Pakistan	35 208	38 635	44 933	53 755	56 673	2.3	3.1	3.7	5.4	2.3	1.1	1.9
Sri Lanka	6 125	6 205	7 169	7 419	7 570	0.3	2.9	0.7	2.0	3.9	1.6	0.4
Turkey	20 077	21 343	22 358	24 492	24 994	1.5	0.9	1.8	2.0	2.2	2.6	3.9
North and Central Asia												
Armenia	1 655	1 307	1 173	1 166	1 169	-5.7	-2.1	-0.1	0.3	-8.4	8.2	15.9
Azerbaijan	2 812	2 960	3 306	3 784	3 899	1.3	2.2	2.7	3.0	-18.8	7.0	19.4
Georgia	2 470	2 275	2 101	1 944	1 924	-2.0	-1.6	-1.5	-1.0	-15.0	5.3	8.5
Kazakhstan	7 138	6 851	6 595	7 432	7 545	-1.0	-0.8	2.4	1.5	-5.3	3.5	6.8
Kyrgyzstan	1 626	1 671	1 861	2 102	2 150	0.7	2.2	2.5	2.3	-12.5	4.1	0.7
Russian Federation	67 202	65 097	64 939	68 253	68 618	-0.8	0.0	1.0	0.5	-7.7	2.2	5.3
Tajikistan	1 669	1 681	1 760	1 910	1 952	0.2	0.9	1.6	2.2	-18.2	-0.2	6.8
Turkmenistan	1 295	1 476	1 729	1 963	2 017	3.3	3.2	2.6	2.8	-12.8	2.7	1.7
Uzbekistan	6 941	7 516	8 739	10 193	10 522	2.0	3.1	3.1	3.2	-5.5	2.7	2.9
Pacific												
American Samoa												
Cook Islands												
Fiji	277	301	323	345	351	2.1	1.4	1.3	1.7			
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	1 752	1 914	2 225	2 569	2 640	2.2	3.1	2.9	2.8			
Samoa												
Solomon Islands	117	135	157	185	191	3.6	3.1	3.3	3.2			
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	7 597	8 206	8 978	9 780	9 929	1.9	1.8	1.7	1.5	2.3	2.1	1.1
Japan	63 640	64 762	64 455	63 762	63 632	0.4	-0.1	-0.2	-0.2	0.7	1.0	1.6
New Zealand	1 510	1 708	1 823	2 077	2 111	3.1	1.3	2.6	1.6	1.4	1.3	0.7
ESCAP	1 486 184	1 582 435	1 702 330	1 836 387	1 864 802	1.6	1.5	1.5	1.5	3.3	2.0	5.4
LLDC	36 241	38 930	42 742	49 502	50 880	1.8	1.9	3.0	2.8	-8.1	3.2	6.8
LDC	87 428	95 548	106 976	119 640	122 380	2.2	2.3	2.3	2.3	3.1	3.7	4.6
SIDS	4 055	4 417	5 014	5 716	5 860	2.2	2.6	2.7	2.5	6.4	2.0	2.3
ASEAN	194 176	211 959	236 793	260 637	265 639	2.2	2.2	1.9	1.9	5.7	0.3	3.2
SAARC	424 329	460 482	513 507	569 477	582 923	2.1	2.2	2.1	2.4	4.3	3.5	4.3
Central Asia	25 606	25 737	27 264	30 494	31 178	0.1	1.2	2.3	2.2	-8.8	3.4	6.9
Low-income	497 520	540 816	602 724	669 687	685 266	2.1	2.2	2.1	2.3	3.8	3.6	4.5
Middle-income	892 121	941 116	997 319	1 061 834	1 074 240	1.3	1.2	1.3	1.2	4.7	2.4	8.0
High-income	96 543	100 503	102 287	104 866	105 296	1.0	0.4	0.5	0.4	1.6	1.6	1.8
Africa	225 710	255 542	289 989	333 162	342 114	3.2	2.6	2.8	2.7	-0.9	1.9	1.8
Latin America & Carib.	164 813	188 159	211 128	234 216	238 325	3.4	2.3	2.1	1.8	1.9	1.0	0.5
North America	137 274	145 473	158 417	165 592	168 323	1.5	1.7	0.9	1.6	1.7	2.4	1.6
Europe	243 039	237 988	242 935	249 522	251 833	-0.5	0.4	0.5	0.9	1.6	1.5	1.5
Other Asia-Pacific	30 075	34 831	40 715	47 833	49 337	3.7	3.2	3.3	3.1	1.9	1.2	0.4
World												

15.2 Employment by sector

	Agriculture				Industry				Services			
	% of total employment				% of total employment				% of total employment			
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
East and North-East Asia												
China	64.9	59.3	60.6		23.1	25.7	22.7		12.1	15.0	16.7	
DPR Korea												
Hong Kong, China	0.9	0.6	0.3	0.3	36.7	27.0	20.3	15.2	62.4	72.4	79.4	84.5
Macao, China	0.2	0.2	0.2	0.1	42.6	32.1	28.2	25.2	57.3	67.7	71.6	74.7
Mongolia		46.1	48.6	39.9		17.9	14.1	16.8		35.9	37.2	43.3
Republic of Korea	17.9	12.4	10.6	7.9	35.4	33.3	28.2	26.9	46.7	54.3	61.2	65.2
South-East Asia												
Brunei Darussalam												
Cambodia			73.8				8.4				17.7	
Indonesia	56.0	44.0	45.1	44.0	13.8	18.4	17.5	18.0	30.3	37.6	37.3	38.0
Lao PDR		85.4				3.5				11.1		
Malaysia	26.0	20.0	18.4		27.5	32.3	32.2		46.5	47.7	49.5	
Myanmar	69.7				9.2				21.0			
Philippines	45.2	44.1	37.5	37.0	15.0	15.6	16.0	14.9	39.7	40.3	46.5	48.1
Singapore		0.2	0.0	0.0		31.2	34.0	29.8		68.5	66.0	70.2
Thailand	64.0	52.0	48.8	42.6	14.0	19.8	19.0	20.3	22.0	28.3	32.2	37.1
Timor-Leste												
Viet Nam			65.3				12.4				22.3	
South and South-West Asia												
Afghanistan												
Bangladesh	69.5		64.8		13.6		10.7		16.9		24.5	
Bhutan												
India	69.1	66.7			13.6	12.9			17.3	20.3		
Iran (Islamic Rep. of)	26.4	22.1		25.0	28.3	31.4		30.4	45.3	46.5		44.6
Maldives		23.0	16.5			24.8	22.9			52.2	60.6	
Nepal	83.9	74.8			2.4	5.2			13.8	20.0		
Pakistan	51.2	46.8	48.4	43.1	19.8	18.5	18.0	20.3	29.0	34.6	33.5	36.6
Sri Lanka	48.6	39.6			20.9	24.8			30.5	35.6		
Turkey	46.9	43.4	36.0	29.5	20.7	22.3	24.0	24.7	32.4	34.3	40.0	45.8
North and Central Asia												
Armenia												
Azerbaijan	36.4	36.5	41.0	39.3	26.9	21.1	10.9	12.1	36.6	42.4	48.1	48.6
Georgia			52.2	54.4			9.8	9.3			38.0	36.2
Kazakhstan												
Kyrgyzstan	32.7	47.2	53.1	48.0	27.9	16.7	10.5	12.5	39.4	36.1	36.5	39.5
Russian Federation			14.5	10.2			28.4	29.8			57.1	60.0
Tajikistan	82.1	61.4			0.0	16.1			17.9	22.5		
Turkmenistan												
Uzbekistan		43.3				20.1				36.6		
Pacific												
American Samoa												
Cook Islands												
Fiji												
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea			73.3				3.7				23.0	
Samoa												
Solomon Islands												
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	5.6	5.0	5.0	3.7	25.1	22.8	21.7	21.1	69.3	72.2	73.3	75.2
Japan	7.3	5.7	5.1	4.5	34.2	33.7	31.4	28.3	58.5	60.6	63.5	67.2
New Zealand	10.6	9.7	8.7	7.2	24.7	25.1	23.3	22.1	64.7	65.2	68.0	70.8
ESCAP	57.3	53.1			20.1	21.1			22.6	25.7		
LLDC												
LDC	71.6				10.9				17.5			
SIDS							18.2				43.9	
ASEAN	59.4	51.4	49.1	46.1	13.7	16.7	16.7	17.6	27.0	32.0	34.3	36.3
SAARC	67.6	64.8			14.0	13.0			18.4	22.1		
Central Asia												
Low-income	68.1	65.3			13.5	12.7			18.4	22.0		
Middle-income	57.3	51.7	51.8		22.1	24.7	22.4		20.6	23.6	25.8	
High-income	8.9	6.8	6.0	5.0	33.6	32.3	29.4	26.7	57.5	60.9	64.5	68.3
Africa												
Latin America & Carib.	21.4	22.5			24.9	21.5			53.7	56.0		
North America	3.0	3.0	2.6	1.7	26.2	24.0	23.1	20.8	70.8	73.0	74.3	77.6
Europe	12.4	11.7	10.5	8.0	33.5	31.4	29.4	27.4	54.1	56.9	60.1	64.7
Other Asia-Pacific												
World												

15.3 Employment to population ratio

	Both sexes				Women				Men			
	% of population aged 15 and above				% of women aged 15 and above				% of men aged 15 and above			
	1991	1995	2000	2006	1991	1995	2000	2006	1991	1995	2000	2006
East and North-East Asia												
China	74.9	74.5	72.9	70.6	69.7	68.8	67.0	64.3	79.8	79.9	78.4	76.6
DPR Korea	63.7	63.0	59.9	58.9	49.9	48.4	46.5	45.3	78.4	78.7	74.3	73.5
Hong Kong, China	62.6	58.5	56.5	56.4	47.3	44.9	46.1	49.4	77.6	72.7	68.0	64.3
Macao, China	56.5	57.0	59.3	64.0	44.3	46.4	51.7	57.8	70.0	68.9	68.0	71.0
Mongolia	49.5	57.5	55.4	58.4	40.1	45.8	44.5	46.3	59.2	69.4	66.6	70.8
Republic of Korea	59.0	59.9	57.4	58.7	46.2	47.0	46.1	47.6	72.0	73.0	68.9	70.1
South-East Asia												
Brunei Darussalam	62.5	61.3	60.7	58.8	44.3	43.5	43.4	41.0	78.4	77.3	76.7	75.5
Cambodia	78.7	77.5	75.6	75.5	75.3	73.8	72.9	72.7	82.8	81.8	78.8	78.5
Indonesia	63.1	62.1	63.0	60.2	47.4	46.3	46.7	43.8	78.9	78.1	79.6	76.9
Lao PDR	65.3	64.9	65.1	65.6	52.8	52.7	52.5	53.0	78.1	77.4	78.2	78.6
Malaysia	60.9	60.6	61.3	61.5	42.6	42.0	43.6	44.8	78.9	78.8	78.7	77.9
Myanmar	74.6	73.7	73.7	73.5	65.8	65.0	65.1	65.0	83.6	82.7	82.7	82.3
Philippines	59.1	60.2	58.0	63.8	42.0	44.1	43.2	51.1	76.2	76.4	72.9	76.5
Singapore	64.4	61.8	61.5	59.2	50.0	47.6	49.0	46.9	78.8	76.0	74.1	71.6
Thailand	77.4	73.5	70.8	70.9	70.4	64.5	62.9	63.8	84.7	82.9	79.4	78.7
Timor-Leste	61.9	61.2	62.1	66.5	47.3	46.2	48.5	53.1	76.2	75.6	75.3	79.5
Viet Nam	75.4	74.2	73.2	72.3	71.8	70.9	70.2	69.2	79.0	77.6	76.3	75.6
South and South-West Asia												
Afghanistan	55.8	55.8	55.8	58.2	29.9	29.9	30.1	33.7	79.6	79.7	79.6	80.9
Bangladesh	73.4	70.6	68.5	66.3	60.2	54.9	52.7	49.7	85.8	85.5	83.5	82.2
Bhutan	54.6	53.6	54.1	60.2	28.6	27.8	31.4	43.1	78.8	78.2	76.0	75.0
India	58.6	57.2	56.3	55.1	34.7	33.5	32.4	31.8	60.7	60.3	60.7	61.2
Iran (Islamic Rep. of)	46.1	44.9	46.8	50.4	18.1	21.0	26.3	33.4	72.8	68.0	66.9	67.0
Maldives	49.6	51.3	53.7	59.6	20.9	27.3	36.3	48.5	76.3	73.8	71.3	70.3
Nepal	59.0	57.9	58.0	57.4	43.4	42.5	43.6	43.4	75.0	74.4	73.4	72.4
Pakistan	54.4	53.9	53.0	54.9	24.2	25.3	25.0	30.0	82.6	80.7	79.4	78.4
Sri Lanka	51.6	48.1	51.6	50.9	33.0	28.8	32.4	31.1	70.0	67.3	71.2	71.7
Turkey	53.0	50.3	46.8	46.5	31.9	28.6	24.8	24.8	73.8	71.8	68.7	68.0
North and Central Asia												
Armenia	67.6	56.4	50.5	47.5	61.3	49.0	44.1	42.3	74.6	64.9	58.3	54.0
Azerbaijan	58.5	57.0	58.3	60.5	52.2	49.7	51.9	55.2	65.3	65.0	65.4	66.5
Georgia	60.4	57.7	55.5	51.7	59.1	54.4	47.5	41.5	62.0	61.7	64.9	64.0
Kazakhstan	62.8	60.2	60.1	63.8	54.6	52.3	53.6	58.7	72.0	69.2	67.6	69.7
Kyrgyzstan	58.7	57.5	57.2	58.1	51.1	49.6	48.6	49.2	66.9	65.9	66.4	67.6
Russian Federation	58.4	54.1	52.6	54.8	52.3	47.1	46.5	48.9	65.6	62.7	60.0	62.2
Tajikistan	54.4	51.2	49.1	47.5	45.0	42.5	41.3	40.6	64.0	60.0	57.0	54.7
Turkmenistan	57.6	57.6	59.6	59.0	52.0	51.2	53.3	53.6	63.5	64.5	66.4	64.9
Uzbekistan	55.9	54.3	55.7	57.0	48.5	46.7	48.5	50.2	63.8	62.3	63.3	64.1
Pacific												
American Samoa												
Cook Islands												
Fiji	60.7	60.7	60.7	62.0	46.0	46.0	46.5	48.4	75.2	75.3	74.7	75.6
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	70.7	69.1	70.2	71.1	69.1	68.1	69.1	69.6	72.3	70.1	71.3	72.6
Samoa												
Solomon Islands	65.8	65.8	64.8	65.5	53.4	52.3	51.9	51.6	77.5	78.5	77.0	78.6
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	56.7	56.0	57.1	57.3	46.8	47.0	49.0	50.8	66.8	65.4	65.5	64.2
Japan	62.5	59.2	56.9	54.5	49.6	46.1	44.4	42.8	76.1	73.4	70.6	67.3
New Zealand	56.9	58.5	59.1	62.1	48.6	49.7	51.3	55.8	65.5	68.0	67.4	68.9
ESCAP	66.1	64.8	63.4	62.3	53.1	51.4	50.0	48.9	72.7	72.1	71.2	70.5
LLDC	58.7	57.0	57.1	58.3	47.5	45.2	45.8	47.4	70.5	69.5	69.1	69.7
LDC	71.2	69.2	67.9	66.7	58.6	54.9	53.8	52.3	83.6	83.1	81.8	80.9
SIDS	66.2	64.6	65.0	65.0	56.6	55.3	56.8	56.9	75.6	73.6	73.1	73.0
ASEAN	67.6	66.5	66.1	65.5	55.6	54.3	54.1	54.0	79.8	78.9	78.3	77.4
SAARC	59.5	58.1	57.1	56.2	36.3	34.8	33.8	33.6	64.7	64.2	64.4	64.8
Central Asia	59.3	56.6	56.6	57.6	52.4	49.4	49.6	51.1	66.7	64.6	64.3	64.7
Low-income	61.1	59.7	58.8	57.9	40.2	38.9	37.9	37.7	66.0	65.5	65.6	65.9
Middle-income	69.9	68.8	67.5	66.2	61.7	60.1	58.8	57.4	77.9	77.4	76.1	74.9
High-income	61.2	59.1	57.1	55.9	48.6	46.4	45.4	45.1	74.4	72.5	69.7	67.7
Africa	62.4	62.3	61.2	61.4	49.0	49.1	48.0	48.1	76.1	76.1	74.9	75.2
Latin America & Carib.	56.9	58.3	58.4	58.8	37.6	41.3	42.9	45.6	76.8	76.1	74.8	72.9
North America	61.1	60.0	61.3	60.3	53.1	52.5	54.1	53.9	69.6	68.2	69.2	67.1
Europe	53.6	49.5	49.6	49.5	43.5	40.4	41.1	42.1	83.7	77.5	76.8	75.9
Other Asia-Pacific	64.4	63.5	62.0	61.4	34.7	35.1	34.8	35.9	92.6	90.3	87.9	86.0
World												

15.3 Employment to population ratio

	Both sexes				Women				Men			
	% of population aged 15 and above				% of women aged 15 and above				% of men aged 15 and above			
	1991	1995	2000	2006	1991	1995	2000	2006	1991	1995	2000	2006
East and North-East Asia												
China	74.9	74.5	72.9	70.6	69.7	68.8	67.0	64.3	79.8	79.9	78.4	76.6
DPR Korea	63.7	63.0	59.9	58.9	49.9	48.4	46.5	45.3	78.4	78.7	74.3	73.5
Hong Kong, China	62.6	58.5	56.5	56.4	47.3	44.9	46.1	49.4	77.6	72.7	68.0	64.3
Macao, China	56.5	57.0	59.3	64.0	44.3	46.4	51.7	57.8	70.0	68.9	68.0	71.0
Mongolia	49.5	57.5	55.4	58.4	40.1	45.8	44.5	46.3	59.2	69.4	66.6	70.8
Republic of Korea	59.0	59.9	57.4	58.7	46.2	47.0	46.1	47.6	72.0	73.0	68.9	70.1
South-East Asia												
Brunei Darussalam	62.5	61.3	60.7	58.8	44.3	43.5	43.4	41.0	78.4	77.3	76.7	75.5
Cambodia	78.7	77.5	75.6	75.5	75.3	73.8	72.9	72.7	82.8	81.8	78.8	78.5
Indonesia	63.1	62.1	63.0	60.2	47.4	46.3	46.7	43.8	78.9	78.1	79.6	76.9
Lao PDR	65.3	64.9	65.1	65.6	52.8	52.7	52.5	53.0	78.1	77.4	78.2	78.6
Malaysia	60.9	60.6	61.3	61.5	42.6	42.0	43.6	44.8	78.9	78.8	78.7	77.9
Myanmar	74.6	73.7	73.7	73.5	65.8	65.0	65.1	65.0	83.6	82.7	82.7	82.3
Philippines	59.1	60.2	58.0	63.8	42.0	44.1	43.2	51.1	76.2	76.4	72.9	76.5
Singapore	64.4	61.8	61.5	59.2	50.0	47.6	49.0	46.9	78.8	76.0	74.1	71.6
Thailand	77.4	73.5	70.8	70.9	70.4	64.5	62.9	63.8	84.7	82.9	79.4	78.7
Timor-Leste	61.9	61.2	62.1	66.5	47.3	46.2	48.5	53.1	76.2	75.6	75.3	79.5
Viet Nam	75.4	74.2	73.2	72.3	71.8	70.9	70.2	69.2	79.0	77.6	76.3	75.6
South and South-West Asia												
Afghanistan	55.8	55.8	55.8	58.2	29.9	29.9	30.1	33.7	79.6	79.7	79.6	80.9
Bangladesh	73.4	70.6	68.5	66.3	60.2	54.9	52.7	49.7	85.8	85.5	83.5	82.2
Bhutan	54.6	53.6	54.1	60.2	28.6	27.8	31.4	43.1	78.8	78.2	76.0	75.0
India	58.6	57.2	56.3	55.1	34.7	33.5	32.4	31.8	60.7	60.3	60.7	61.2
Iran (Islamic Rep. of)	46.1	44.9	46.8	50.4	18.1	21.0	26.3	33.4	72.8	68.0	66.9	67.0
Maldives	49.6	51.3	53.7	59.6	20.9	27.3	36.3	48.5	76.3	73.8	71.3	70.3
Nepal	59.0	57.9	58.0	57.4	43.4	42.5	43.6	43.4	75.0	74.4	73.4	72.4
Pakistan	54.4	53.9	53.0	54.9	24.2	25.3	25.0	30.0	82.6	80.7	79.4	78.4
Sri Lanka	51.6	48.1	51.6	50.9	33.0	28.8	32.4	31.1	70.0	67.3	71.2	71.7
Turkey	53.0	50.3	46.8	46.5	31.9	28.6	24.8	24.8	73.8	71.8	68.7	68.0
North and Central Asia												
Armenia	67.6	56.4	50.5	47.5	61.3	49.0	44.1	42.3	74.6	64.9	58.3	54.0
Azerbaijan	58.5	57.0	58.3	60.5	52.2	49.7	51.9	55.2	65.3	65.0	65.4	66.5
Georgia	60.4	57.7	55.5	51.7	59.1	54.4	47.5	41.5	62.0	61.7	64.9	64.0
Kazakhstan	62.8	60.2	60.1	63.8	54.6	52.3	53.6	58.7	72.0	69.2	67.6	69.7
Kyrgyzstan	58.7	57.5	57.2	58.1	51.1	49.6	48.6	49.2	66.9	65.9	66.4	67.6
Russian Federation	58.4	54.1	52.6	54.8	52.3	47.1	46.5	48.9	65.6	62.7	60.0	62.2
Tajikistan	54.4	51.2	49.1	47.5	45.0	42.5	41.3	40.6	64.0	60.0	57.0	54.7
Turkmenistan	57.6	57.6	59.6	59.0	52.0	51.2	53.3	53.6	63.5	64.5	66.4	64.9
Uzbekistan	55.9	54.3	55.7	57.0	48.5	46.7	48.5	50.2	63.8	62.3	63.3	64.1
Pacific												
American Samoa												
Cook Islands												
Fiji	60.7	60.7	60.7	62.0	46.0	46.0	46.5	48.4	75.2	75.3	74.7	75.6
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	70.7	69.1	70.2	71.1	69.1	68.1	69.1	69.6	72.3	70.1	71.3	72.6
Samoa												
Solomon Islands	65.8	65.8	64.8	65.5	53.4	52.3	51.9	51.6	77.5	78.5	77.0	78.6
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	56.7	56.0	57.1	57.3	46.8	47.0	49.0	50.8	66.8	65.4	65.5	64.2
Japan	62.5	59.2	56.9	54.5	49.6	46.1	44.4	42.8	76.1	73.4	70.6	67.3
New Zealand	56.9	58.5	59.1	62.1	48.6	49.7	51.3	55.8	65.5	68.0	67.4	68.9
ESCAP	66.1	64.8	63.4	62.3	53.1	51.4	50.0	48.9	72.7	72.1	71.2	70.5
LLDC	58.7	57.0	57.1	58.3	47.5	45.2	45.8	47.4	70.5	69.5	69.1	69.7
LDC	71.2	69.2	67.9	66.7	58.6	54.9	53.8	52.3	83.6	83.1	81.8	80.9
SIDS	66.2	64.6	65.0	65.0	56.6	55.3	56.8	56.9	75.6	73.6	73.1	73.0
ASEAN	67.6	66.5	66.1	65.5	55.6	54.3	54.1	54.0	79.8	78.9	78.3	77.4
SAARC	59.5	58.1	57.1	56.2	36.3	34.8	33.8	33.6	64.7	64.2	64.4	64.8
Central Asia	59.3	56.6	56.6	57.6	52.4	49.4	49.6	51.1	66.7	64.6	64.3	64.7
Low-income	61.1	59.7	58.8	57.9	40.2	38.9	37.9	37.7	66.0	65.5	65.6	65.9
Middle-income	69.9	68.8	67.5	66.2	61.7	60.1	58.8	57.4	77.9	77.4	76.1	74.9
High-income	61.2	59.1	57.1	55.9	48.6	46.4	45.4	45.1	74.4	72.5	69.7	67.7
Africa	62.4	62.3	61.2	61.4	49.0	49.1	48.0	48.1	76.1	76.1	74.9	75.2
Latin America & Carib.	56.9	58.3	58.4	58.8	37.6	41.3	42.9	45.6	76.8	76.1	74.8	72.9
North America	61.1	60.0	61.3	60.3	53.1	52.5	54.1	53.9	69.6	68.2	69.2	67.1
Europe	53.6	49.5	49.6	49.5	43.5	40.4	41.1	42.1	83.7	77.5	76.8	75.0
Other Asia-Pacific	64.4	63.5	62.0	61.4	34.7	35.1	34.8	35.9	92.6	90.3	87.9	86.0
World												

15.4 Unemployment rate

	Total				Female				Male			
	% of labour force				% of female labour force				% of male labour force			
	1990	2000	2004	2005	1990	2000	2004	2005	1990	2000	2004	2005
East and North-East Asia												
China	2.5	3.1	4.2	4.2								
DPR Korea												
Hong Kong, China	1.3	4.9	6.8	5.6	1.3	4.0	5.6	4.4	1.3	5.6	7.8	6.6
Macao, China	3.0	6.5	4.8	4.0	4.3	4.0	3.7	3.4	2.0	8.8	5.7	4.6
Mongolia		17.5				16.5				18.3		
Republic of Korea	2.5	4.4	3.7	3.7	1.8	3.6	3.4	3.4	2.9	5.0	3.9	4.0
South-East Asia												
Brunei Darussalam												
Cambodia		2.5				2.8				2.2		
Indonesia		6.1	9.9	10.3			12.9	13.6			8.1	8.3
Lao PDR				1.4				1.4				1.4
Malaysia	4.7	3.0	3.5			3.1				2.9		
Myanmar	6.0				8.8				4.7			
Philippines	8.1	10.1	10.9	7.4	9.8	9.9	11.7	7.3	7.1	10.3	10.4	7.4
Singapore	1.7		5.3	4.2	1.4		5.3	4.9	1.9		5.4	3.7
Thailand	2.2	2.4	1.5	1.3	2.4	2.3	1.4	1.2	2.0	2.4	1.6	1.5
Timor-Leste												
Viet Nam		2.3	2.1			2.1	2.4			2.4	1.9	
South and South-West Asia												
Afghanistan				8.5				9.5				7.6
Bangladesh		3.3				3.3				3.2		
Bhutan												
India		4.3	5.0			4.1	5.3			4.4	4.9	
Iran (Islamic Rep. of)				11.5				17.1				10.1
Maldives		2.3				3.4				1.7		
Nepal												
Pakistan	2.6	7.2	7.4	7.7	0.7	15.8	13.0	12.8	2.8	5.5	6.2	6.6
Sri Lanka	14.4	7.4	8.5	7.6	23.5	11.2	13.6	11.9	9.1	5.4	6.0	5.5
Turkey	8.0	6.5	10.3	10.3	8.5	6.3	9.7	10.3	7.8	6.6	10.5	10.3
North and Central Asia												
Armenia												
Azerbaijan				8.6				9.5				7.6
Georgia		10.8	12.6	13.8		10.5	11.7	12.6		11.1	13.4	14.8
Kazakhstan		12.8	8.4				9.8				7.0	
Kyrgyzstan			8.5				9.3				8.0	
Russian Federation		9.8	7.9			9.4	8.0			10.2	7.8	
Tajikistan												
Turkmenistan												
Uzbekistan												
Pacific												
American Samoa												
Cook Islands												
Fiji	6.4											
French Polynesia												
Guam	2.2											
Kiribati												
Marshall Islands				50.0				0.0				0.0
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	7.7	2.9			5.9	1.3			9.0	4.3		
Samoa												
Solomon Islands												
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	6.9	6.3	5.5	5.1	7.2	6.0	5.7	5.3	6.7	6.5	5.4	4.9
Japan	2.1	4.8	4.7	4.4	2.2	4.5	4.4	4.2	2.0	5.0	4.9	4.6
New Zealand	7.8	5.9	3.9	3.7	7.3	5.8	4.4	4.0	8.1	6.1	3.5	3.5
ESCAP		5.1	5.8									
LLDC												
LDC												
SIDS	5.3	4.2			4.4	3.3			5.9	4.7		
ASEAN		5.2	6.7	6.4			7.7	7.4			6.1	5.7
SAARC		4.5	5.3			4.8	6.1			4.4	5.1	
Central Asia												
Low-income		4.4	5.0			4.4	5.4			4.3	4.8	
Middle-income	4.3	5.8	6.9	6.8								
High-income	2.7	4.9	4.6	4.4	2.6	4.5	4.4	4.2	2.7	5.1	4.8	4.5
Africa												
Latin America & Carib.	5.6		8.6		6.8		11.1		5.0		6.8	
North America	5.9	4.3	5.7	5.3	5.8	4.4	5.6	5.2	5.9	4.2	5.8	5.3
Europe		9.4	9.2	8.9		10.5	9.9	9.5		8.4	8.6	8.3
Other Asia-Pacific												
World												

15.5 Youth unemployment rate

	Total						Female youth unemployment rate					
	% of labour force aged 15-24						% of women labour force aged 15-24					
	1990	1995	2000	2003	2004	2005	1990	1995	2000	2003	2004	2005
East and North-East Asia												
China	0.8						1.0					
DPR Korea												
Hong Kong, China	3.4	6.9	11.2	15.0	12.2	10.9	3.3	5.9	10.4	11.5	9.1	8.0
Macao, China		6.1	9.9	12.4	10.7	8.2		4.3	6.7	7.8	7.4	5.8
Mongolia			22.8						23.0			
Republic of Korea	7.0	6.3	10.2	9.6	10.0	10.2	5.5	5.3	8.5	8.5	8.9	9.0
South-East Asia												
Brunei Darussalam												
Cambodia												
Indonesia		20.0										
Lao PDR		5.0						3.9				
Malaysia			8.3						8.3			
Myanmar												
Philippines	15.4	16.1	21.2	20.1	21.7	16.4	19.2	19.1	23.6	23.2	25.9	18.9
Singapore		5.0	4.7	7.8		5.2		5.5	5.6	9.5		6.3
Thailand	4.3		6.6	5.0	4.5	4.8	4.2		6.0	5.1	4.3	4.6
Timor-Leste												
Viet Nam			4.8	4.8	4.6				4.6	5.2	4.9	
South and South-West Asia												
Afghanistan												
Bangladesh			10.7	6.6					10.3	5.8		
Bhutan												
India			10.1		10.5				10.2		10.8	
Iran (Islamic Rep. of)						23.1						32.1
Maldives		1.9	4.4					3.0	5.1			
Nepal												
Pakistan	5.1	8.9	13.3		11.7		1.3	18.1	29.2		14.9	
Sri Lanka	33.3	32.8	23.6	27.2	28.9	26.2	46.9	41.3	30.9	36.2	39.8	37.1
Turkey	16.0	15.6	13.1	20.5	19.7	19.3	15.0	13.1	11.9	18.9	18.9	19.3
North and Central Asia												
Armenia												
Azerbaijan												
Georgia			21.1	24.9	28.3	28.3			20.5	31.7	33.3	30.6
Kazakhstan				14.5	14.3					16.4	15.7	
Kyrgyzstan												
Russian Federation		20.4						21.6				
Tajikistan												
Turkmenistan												
Uzbekistan												
Pacific												
American Samoa												
Cook Islands												
Fiji												
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea			5.3									
Samoa												
Solomon Islands												
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	13.2	14.4	11.8	11.6	11.7	10.5	12.4	14.0	11.0	11.1	11.1	10.0
Japan	4.3	6.1	9.2	10.1	9.5	8.7	4.1	6.1	7.9	8.6	8.3	7.4
New Zealand	14.1	11.9	13.2	10.2	9.3	9.4	13.2	11.8	12.0	10.4	10.1	9.8
ESCAP												
LLDC												
LDC												
SIDS												
ASEAN												
SAARC												
Central Asia												
Low-income												
Middle-income												
High-income												
Africa												
Latin America & Carib.												
North America												
Europe												
Other Asia-Pacific												
World												

15.6 Employment by status

	Employees				Employers				Other self-employed			
	% of total employment				% of total employment				% of total employment			
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
East and North-East Asia												
China												
DPR Korea												
Hong Kong, China		89.2	89.5	87.8		5.4	4.9	4.5		5.4	5.7	7.7
Macao, China			88.2	89.5			3.4	4.0			8.4	6.5
Mongolia			41.4				1.3				57.3	
Republic of Korea	60.5	62.6	63.1	66.4	28.0	27.9	6.9	7.3	11.4	9.6	30.0	26.3
South-East Asia												
Brunei Darussalam												
Cambodia			15.2				0.2				84.6	
Indonesia			32.8				2.3				64.9	
Lao PDR		9.7				0.2				90.1		
Malaysia		72.6	74.3			2.5	3.0			24.9	22.8	
Myanmar												
Philippines				50.3				4.5				45.1
Singapore		88.5	89.6			5.0	5.8			6.6	4.6	
Thailand	28.4	35.7	39.6		1.2	2.9	3.3		70.3	61.4	57.1	
Timor-Leste												
Viet Nam			18.7				0.2				81.1	
South and South-West Asia												
Afghanistan												
Bangladesh			15.5				0.2				84.3	
Bhutan												
India												
Iran (Islamic Rep. of)												
Maldives		38.4	28.2			5.1	4.0			56.5	67.9	
Nepal												
Pakistan		34.1	35.6	37.9		1.0	0.8	0.9		64.9	63.6	61.2
Sri Lanka												
Turkey	56.4	59.3	48.6	54.2			5.1	5.1	43.6	40.7	46.3	40.7
North and Central Asia												
Armenia												
Azerbaijan												
Georgia			37.5	34.5			1.5	1.1			61.0	64.4
Kazakhstan												
Kyrgyzstan												
Russian Federation		93.2	89.9	92.2		0.4	0.9	1.3		6.4	9.2	6.5
Tajikistan												
Turkmenistan												
Uzbekistan												
Pacific												
American Samoa												
Cook Islands												
Fiji												
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea												
Samoa												
Solomon Islands												
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	84.9	84.6	85.9	87.0	4.8	4.4	3.7	3.1	10.3	11.0	10.4	9.9
Japan	77.6	81.7	83.3	85.3	3.1	3.0	2.8	2.6	19.3	15.3	13.8	12.2
New Zealand	98.5	79.0	79.2	81.4		8.2	7.1	6.5	1.5	12.8	13.6	12.0
ESCAP												
LLDC												
LDC												
SIDS												
ASEAN			35.4				2.6				62.0	
SAARC												
Central Asia												
Low-income												
Middle-income												
High-income	75.6	78.3	79.6	81.3	8.2	8.4	4.0	3.9	16.2	13.3	16.4	14.8
Africa												
Latin America & Carib.	68.6	61.6			5.8	4.4			25.6	34.0		
North America	98.2	98.2	98.2	98.2	1.5	1.6	1.7	1.7	0.3	0.2	0.1	0.1
Europe		82.4	83.0	84.0		6.7	6.8	7.2		10.9	10.2	8.8
Other Asia-Pacific												
World												

15.7 Gender equality in the labour market

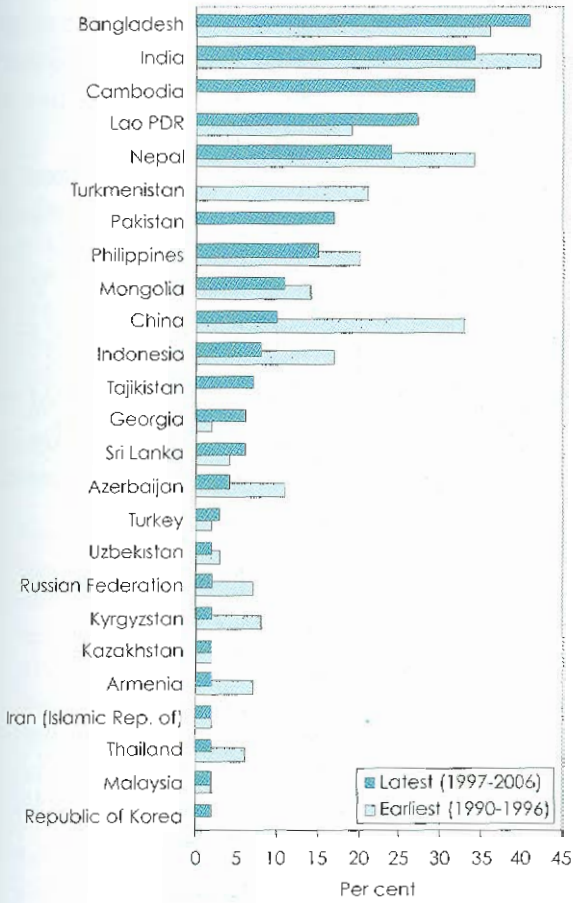
	Women to men ratio in employment (Percentage)				Women to men ratio in non-agriculture employment (Percentage)				Women to men employers (Percentage)			
	1991	1995	2000	2006	1990	1995	2000	2005	1990	1995	2000	2005
East and North-East Asia												
China	82.6	82.2	81.7	81.6								
DPR Korea	68.1	66.2	67.4	67.6								
Hong Kong, China	59.2	64.2	74.8	77.8	57.4	63.6	73.0	83.3		14.8	16.8	21.9
Macao, China	70.2	76.0	86.5	87.2	69.3	76.9	89.3	91.0			13.8	22.1
Mongolia	69.2	67.5	68.7	68.0		92.1	101.8	113.1			38.9	
Republic of Korea	64.8	65.7	68.5	69.3	65.6	65.0	68.7	70.2	37.5	39.7	22.0	25.3
South-East Asia												
Brunei Darussalam	49.3	50.6	52.2	51.6								
Cambodia	109.1	106.2	105.3	105.2			98.4				11.7	
Indonesia	60.7	60.1	59.7	59.4	62.3	55.2	59.3	54.5				
Lao PDR	69.1	70.1	69.1	69.3		61.1				35.0		
Malaysia	53.0	52.3	54.2	54.2	55.9	54.3	57.6			11.0	11.1	
Myanmar	80.9	80.9	81.3	81.4								
Philippines	55.3	58.0	59.7	62.2	83.6	83.8	84.1	85.2				25.5
Singapore	63.8	63.2	66.6	64.2		63.6	65.2	71.5		19.2	24.5	
Thailand	86.3	81.6	84.8	84.2	83.0	78.7	85.4	91.9	28.3	24.9	30.3	
Timor-Leste	59.2	58.3	62.3	63.3								
Viet Nam	93.5	94.1	94.3	93.1			93.2				55.4	
South and South-West Asia												
Afghanistan	34.7	34.7	35.0	34.8								
Bangladesh	66.1	60.7	59.9	60.0	17.1		30.6				12.8	
Bhutan	33.9	33.9	40.0	39.9								
India	39.6	39.1	38.5	38.7								
Iran (Islamic Rep. of)	23.8	30.1	38.6	39.5				20.3				
Maldives	25.5	34.6	48.3	50.8		46.3	44.0			14.9	12.5	
Nepal	59.5	60.8	63.4	64.0								
Pakistan	27.5	29.4	29.7	30.5	7.1	8.1	7.9	10.8		3.4	2.1	1.6
Sri Lanka	46.6	42.8	46.4	45.7		44.4						
Turkey	42.6	39.3	35.7	37.3	16.7	16.9	19.9	21.5			4.0	4.7
North and Central Asia												
Armenia	91.4	89.0	92.0	93.6								
Azerbaijan	87.7	84.2	88.1	88.6			77.3	96.6				
Georgia	110.1	103.7	86.6	89.6			75.2	80.8			13.6	23.2
Kazakhstan	84.0	85.8	91.5	93.4								
Kyrgyzstan	82.8	81.5	78.6	77.9			74.7					
Russian Federation	94.6	91.1	93.9	95.1			99.9	102.1		24.0	40.3	66.2
Tajikistan	73.1	72.8	73.8	75.2								
Turkmenistan	87.0	84.7	85.5	86.4								
Uzbekistan	80.4	79.2	80.3	80.4								
Pacific												
American Samoa												
Cook Islands												
Fiji	60.1	60.1	61.5	61.1								
French Polynesia												
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia												
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	88.5	92.2	94.0	94.2								
Samoa												
Solomon Islands	64.8	62.7	63.5	63.0								
Tonga												
Tuvalu												
Vanuatu												
ESCAP Developed Economies												
Australia	71.4	75.3	78.8	79.7	73.1	77.6	81.0	83.4	46.5	48.7	50.0	50.6
Japan	68.8	67.8	68.6	69.1	66.8	67.1	68.4	70.7	20.6	22.9	22.1	21.6
New Zealand	77.9	78.7	82.7	83.4	81.9	83.9	87.7	89.1		41.8	40.8	44.0
ESCAP	65.5	64.6	64.0	64.1								
LLDC	70.4	68.6	69.9	70.4								
LDC	68.5	65.0	64.8	64.9								
SIDS	72.2	73.3	76.6	75.7								
ASEAN	71.0	70.3	70.8	70.8	72.9	67.3	70.9	70.2				
SAARC	41.5	40.8	40.2	40.5								
Central Asia	85.4	84.0	84.6	85.5								
Low-income	46.9	46.3	45.9	46.1								
Middle-income	77.7	76.9	76.6	76.3								
High-income	67.9	67.9	69.8	70.4	67.0	67.6	69.9	72.5	32.4	35.0	24.4	25.8
Africa	66.5	66.7	66.2	66.0								
Latin America & Carib.	50.8	56.8	60.3	60.8	61.8	68.4				20.7		
North America	80.9	83.1	84.4	84.9	84.6	87.3	88.8	88.0				
Europe	73.6	75.8	77.6	78.4		74.0	76.8	80.7		42.3	39.0	45.3
Other Asia-Pacific	33.6	34.7	35.5	35.7								
World												

16. Poverty and inequality

Despite decades of solid economic growth leading to significant poverty reduction, income inequality has risen in many Asian and Pacific countries.

Out of the 20 countries for which trend data is available, 12 reduced the share of their population living below one dollar (PPP) per day, the international poverty line, between the early 1990s and mid-2000s.

Figure 16.1 Percentage of the population living below one dollar [1993 PPP] per day in Asia and the Pacific, 1990-2006



Among the subregions for which data is available, the largest poverty reduction occurred in Central Asia. In this subregion, Kyrgyzstan reduced the share of its population living below one dollar (PPP) per day by three quarters, dropping from 8 per cent in the early 1990s, to only 2 per cent by the mid-2000s. Armenia, Azerbaijan and the Russian Federation also experienced considerable decreases in the share of the population living in poverty. The only country in Central Asia where the share of the poor increased, from 2 to 6 per cent, was Georgia.

In East Asia, China registered an impressive reduction in poverty. About one third of China's population lived below the one dollar (PPP) per day poverty line at the beginning of the 1990s, while according to the latest estimates, 1 in 10 Chinese lives below this line. This represents a reduction in poverty of 70 per cent, comparable to Thailand, where the share of the population living below one dollar (PPP) per day declined from 6 to 2 per cent.

India also registered a substantial decrease in poverty, although at a much lower rate compared with China and Thailand. Between 1993 and 2004, the proportion of Indians living below one dollar (PPP) per day fell from 42 to 34 per cent, a reduction of nearly 20 per cent. Similarly, Nepal experienced a sizable decrease in the share of the poor, from 34 per cent in 1996 to 24 per cent in 2004. In Bangladesh and Sri Lanka, however, the share of the population living below one dollar (PPP) per day increased during this period, rising from 36 per cent in 1992 to 41 per cent in 2000 in the former and from 4 per cent in 1990 to 6 per cent in 2002 in the latter country.

The one dollar (PPP) per day line is used to compare poverty incidence across countries on the basis of fixed purchasing power. The national poverty line, on the other hand, reflects the official minimum standard of living based on country-specific characteristics. Both level and trend assessments based on these two poverty lines for the same country do not always agree.

For instance, according to national poverty estimates, 68 per cent of the population in Azerbaijan lived in poverty in 1995, while only 50 per cent of the population was poor in 2001. This contrasts with the 11 and 4 per cent of the population of Azerbaijan living below one dollar (PPP) per day line in the same years. In other words, the national and international yard sticks give quite different pictures of povery.

In the case of India, the poverty reduction rate is similar when international and national poverty lines are considered, respectively, between 1993 and 2004 and between 1994 and 2000. Yet, the two lines give different incidences of poverty: according to the latest national line estimates, the share of the poor is 29 per cent, but the international poverty line suggests 34 per cent.

The most significant divergence between the international and national poverty lines is registered by Thailand and Indonesia. According to the one dollar (PPP) per day line, the share of the poor decreased in both countries between the 1990s and

the 2000s, but national poverty line estimates show that the share has actually risen by 40 per cent in the case of Thailand, to 14 per cent of its total population, and by 69 per cent in the case of Indonesia, to 27 per cent of the population.

In line with the reduction in the incidence of poverty, the limited data show that poverty depth also diminished in some Asian and Pacific countries. Between the early 1990s and the early to mid-2000s, the poverty gap ratio declined in three out of the nine countries for which trend data exists, meaning that, for those living below the poverty line, the average distance to it was reduced. In the case of Kyrgyzstan, for instance, the poverty gap ratio dropped considerably, from over 3 per cent in 1993 down to 0.5 per cent in 2003.

In India, as well, significant progress was made in reducing the depth of poverty; the poverty gap ratio dropped by 27 per cent, from 11 to 8 per cent in just over a decade. In the Lao People's Democratic Republic, on the other hand, the poverty gap ratio doubled, to 6 per cent, in 10 years.

Although poverty incidence and depth seem to be on the decline, inequality in income distribution has been on the rise. In many countries, the poorest 20 per cent of the population has seen its share of national consumption drop steeply.

In 12 out of 20 countries of the region for which trend data is available, the share of the poorest quintile in national consumption declined; there was some progress in the eight remaining countries. In Nepal and Sri Lanka, this share fell by over 20 and 22 per cent, respectively, from 7.5 to 6 per cent and from 9 to 7 per cent. Turkey, despite ranking as a middle-income economy with steady economic growth, registered a decrease in the share of the poorest quintile in national consumption by 8.6 per cent in less than a decade.

In the case of South-East Asia, the share of national consumption of the poorest quintile in the Lao People's Democratic Republic and the Philippines fell by 15.6 and 8.5 per cent, respectively, between the early 1990s and the early 2000s. Meanwhile, Viet Nam, Thailand and Indonesia recorded an increase in the share of the poorest quintile in national consumption by 25, 12.5 and 7.7 per cent, respectively, between the early 1990s and the early to mid-2000s.

Figure 16.2 Share of the poorest quintile in national income or consumption in Asia and the Pacific, 1990-2006

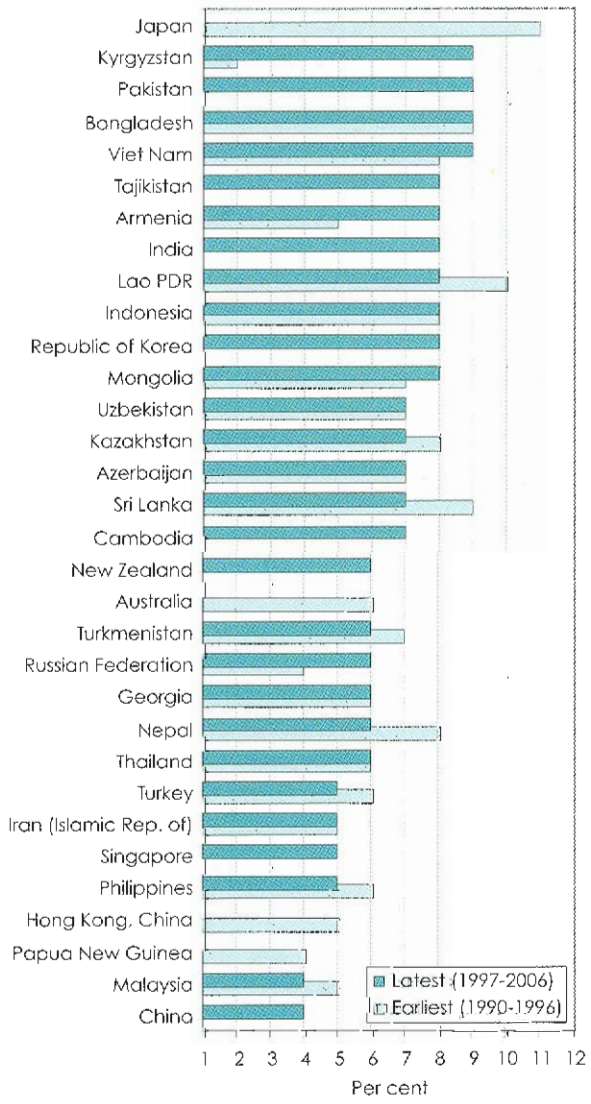
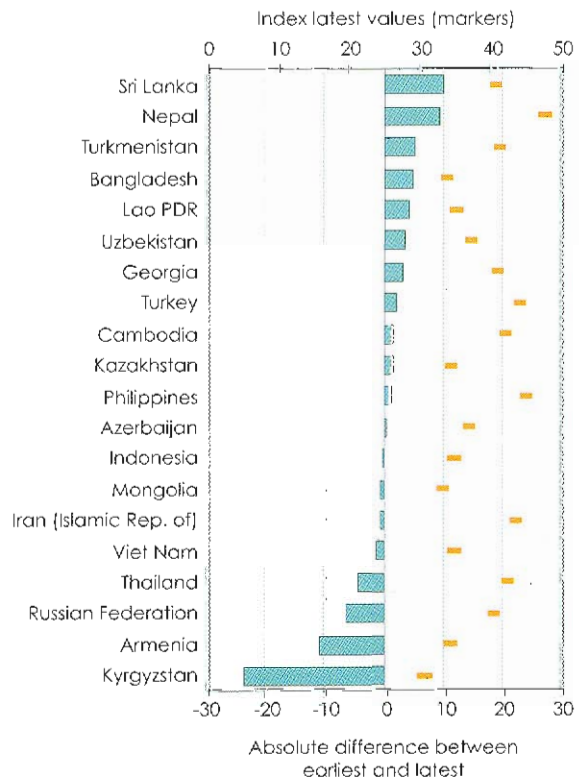


Figure 16.3 Gini index and change between earliest (1990-1997) and latest (1998-2005) periods in Asia and the Pacific



These trends are confirmed by a more comprehensive measure of inequality, the Gini index. In the past, Gini indices across the Asian and Pacific region have been considerably lower than in other parts of the world indicating lower income inequality. This, however, is no longer the case.

The bars in figure 16.3 show that, in the past decade or so, inequality rose in 11 out of 20 countries in the region. The increases were steepest in Sri Lanka and Nepal, where the Gini index increased by more than 10 points. This in line with the decrease in the share in national consumption of their poorest quintiles, as mentioned above. The Philippines and Turkey had smaller increases in their Gini indices, but the values are still over 40. Even in Thailand, where the Gini index decreased between 1992 and 2002, the value, at 42, is still high.

Among Central Asian countries, Kyrgyzstan, Armenia and the Russian Federation experienced a substantial reduction in their Ginis. In the case of Kyrgyzstan, the index dropped by over 40 per cent, making it the lowest among all Asian and Pacific countries analysed, even the Republic of Korea, which has a Gini index of 32.

The highest level of inequality among all the countries of the region is currently found in Nepal, with China not far behind. Both have Gini indices close to 50, similar to those of Latin American countries, which are usually among the world's highest.

Population living below $1 a day (percentage): The percentage of the population living on less than $1.08 a day at 1993 international prices. The one dollar a day poverty line is compared to consumption or income per person and includes consumption from own production and income in kind. This poverty line has fixed purchasing power across countries or areas and is often called an "absolute poverty line" or measure of extreme poverty. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on July 2007).

Population living below the national poverty line (percentage): The proportion of the national population whose incomes are below the official threshold set by the national Government. National poverty lines are not comparable across countries and may not be comparable over time. They are often defined as the level of income required for having sufficient food or food plus other necessities for survival. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on July 2007).

Poverty gap (ratio): The mean distance separating the population from the poverty line (with the non-poor being given a distance of zero), expressed as a percentage of the poverty line. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on July 2007).

Share of poorest quintile in income or consumption (percentage): The share of income or consumption in national consumption accrued by the poorest quintile of the population, expressed as a percentage. If the income or consumption were equally distributed, the share would be 20 per cent. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed on July 2007).

Gini index: Gini coefficient multiplied by 100. The extent to which the distribution of income (or consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. An index value of 0 corresponds to perfect equality (all earn the same income) and a value of 100 to perfect inequality (one person receives all the income). *Source:* World Bank, *World Development Indicators,* (online database, accessed on May 2007).

16.1 Poverty

	Population living below $1 a day		Population living below the national poverty line	
	Percentage		Percentage	
	Earliest	Latest	Earliest	Latest
East and North-East Asia				
China	33.0 (90)	9.9 (04)	6.0 (96)	4.6 (98)
DPR Korea				
Hong Kong, China				
Macao, China				
Mongolia	13.9 (95)	10.8 (02)	36.3 (95)	36.1 (02)
Republic of Korea		2.0 (98)		
South-East Asia				
Brunei Darussalam				
Cambodia		34.1 (97)		35 (04)
Indonesia	17.4 (93)	7.5 (02)	15.7 (96)	27.1 (99)
Lao PDR	18.6 (92)	27.0 (02)	45.0 (93)	38.6 (98)
Malaysia	2.0 (92)	2.0 (97)		
Myanmar				
Philippines	19.8 (91)	14.8 (03)	40.6 (94)	36.8 (97)
Singapore				
Thailand	6.0 (92)	2.0 (02)	9.8 (94)	13.6 (98)
Timor-Leste				
Viet Nam				28.9 (02)
South and South-West Asia				
Afghanistan				
Bangladesh	35.9 (92)	41.3 (00)	51.0 (96)	49.8 (00)
Bhutan				
India	41.8 (93)	34.3 (04)	36.0 (94)	28.6 (00)
Iran (Islamic Rep. of)	2.0 (90)	2.0 (98)		
Maldives				
Nepal	34.4 (96)	24.1 (04)	41.8 (96)	30.9 (04)
Pakistan		17.0 (02)	28.6 (93)	32.9 (99)
Sri Lanka	3.8 (90)	5.6 (02)	20.0 (91)	
Turkey	2.4 (94)	3.4 (03)	28.3 (94)	27.0 (02)
North and Central Asia				
Armenia	6.7 (96)	2.0 (03)		50.9 (01)
Azerbaijan	10.9 (95)	3.7 (01)	68.1 (95)	49.6 (01)
Georgia	2.0 (96)	6.5 (03)		54.5 (03)
Kazakhstan	2.0 (93)	2.0 (03)	34.6 (96)	
Kyrgyzstan	8.0 (93)	2.0 (03)		41.0 (03)
Russian Federation	7.0 (96)	2.0 (02)	30.9 (94)	
Tajikistan		7.4 (03)		
Turkmenistan	20.7 (93)			
Uzbekistan	3.3 (93)	2.0 (03)		27.5 (00)
Pacific				
American Samoa				
Cook Islands				
Fiji				
French Polynesia				
Guam				
Kiribati				
Marshall Islands				
Micronesia (F.S.)				
Nauru				
New Caledonia				
Niue				
Northern Mariana Is.				
Palau				
Papua New Guinea			37.5 (96)	
Samoa				
Solomon Islands				
Tonga				
Tuvalu				
Vanuatu				
ESCAP Developed Economies				
Australia				
Japan				
New Zealand				
ESCAP				
LLDC				
LDC				
SIDS				
ASEAN				
SAARC				
Central Asia				
Low-income				
Middle-income				
High-income				
Africa				
Latin America & Carib.				
North America				
Europe				
Other Asia-Pacific				
World				

16.2 Inequalities

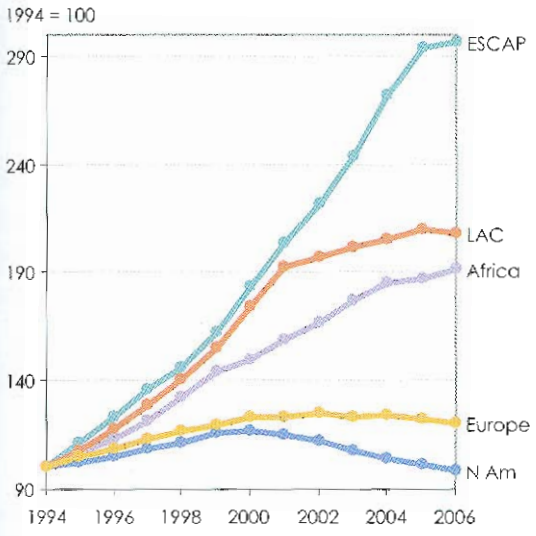
	Poverty gap		Share of poorest quintile in income or consumption		Gini index	
	Ratio		Percentage			
	Earliest	Latest	Earliest	Latest	Earliest	Latest
East and North-East Asia						
China		2.1 (04)		4.3 (04)		46.9 (04)
DPR Korea						
Hong Kong, China			5.3 (96)		43.4 (96)	
Macao, China						
Mongolia		2.2 (02)	7.3 (95)	7.7 (02)	33.2 (95)	32.8 (02)
Republic of Korea				7.9 (98)		31.6 (98)
South-East Asia						
Brunei Darussalam						
Cambodia				6.4 (04)	40.4 (97)	41.7 (04)
Indonesia	2.7 (93)	0.9 (02)	7.8 (93)	8.4 (02)	34.4 (93)	34.3 (02)
Lao PDR	3 (92)	6.1 (02)	9.6 (92)	8.1 (02)	30.4 (92)	34.6 (02)
Malaysia	0.5 (92)		4.6 (92)	4.4 (97)	47.7 (92)	
Myanmar						
Philippines	4.2 (91)	2.9 (03)	5.9 (91)	5.4 (03)	43.8 (91)	44.5 (03)
Singapore				5.0 (98)		42.5 (98)
Thailand	0.5 (92)	0.5 (02)	5.6 (92)	6.3 (02)	46.2 (92)	42.0 (02)
Timor-Leste						
Viet Nam			7.2 (93)	9.0 (04)	35.7 (93)	34.4 (04)
South and South-West Asia						
Afghanistan						
Bangladesh	8.8 (92)		9.4 (92)	8.6 (00)	28.3 (92)	33.4 (00)
Bhutan						
India	10.7 (93)	7.9 (04)		8.1 (04)		36.8 (04)
Iran (Islamic Rep. of)	0.5 (90)		5.2 (90)	5.1 (98)	43.6 (90)	43.0 (98)
Maldives						
Nepal		5.4 (04)	7.5 (96)	6.0 (04)	37.7 (96)	47.2 (04)
Pakistan		3.1 (02)		9.3 (02)		30.6 (02)
Sri Lanka	0.7 (90)	0.8 (02)	9.0 (90)	7.0 (02)	30.1 (90)	40.2 (02)
Turkey		0.8 (03)	5.8 (94)	5.3 (03)	41.5 (94)	43.6 (03)
North and Central Asia						
Armenia		0.5 (03)	5.4 (96)	8.5 (03)	44.4 (96)	33.8 (03)
Azerbaijan			6.8 (95)	7.4 (01)	36.0 (95)	36.5 (01)
Georgia		2.1 (03)	6.1 (96)	5.6 (03)	37.1 (96)	40.4 (03)
Kazakhstan	0.5 (93)	0.5 (03)	7.5 (93)	7.4 (03)	32.7 (93)	33.9 (03)
Kyrgyzstan	3.3 (93)	0.5 (03)	2.5 (93)	9.0 (03)	53.7 (93)	30.3 (03)
Russian Federation		0.5 (02)	4.5 (96)	6.1 (02)	46.2 (96)	39.9 (02)
Tajikistan		1.3 (03)		7.9 (03)		32.6 (03)
Turkmenistan	5.3 (93)		6.9 (93)	6.1 (98)	35.4 (93)	40.8 (98)
Uzbekistan	0.5 (93)	0.5 (03)	7.3 (93)	7.2 (03)	33.3 (93)	36.8 (03)
Pacific						
American Samoa						
Cook Islands						
Fiji						
French Polynesia						
Guam						
Kiribati						
Marshall Islands						
Micronesia (F.S.)						
Nauru						
New Caledonia						
Niue						
Northern Mariana Is.						
Palau						
Papua New Guinea			4.5 (96)		50.9 (96)	
Samoa						
Solomon Islands						
Tonga						
Tuvalu						
Vanuatu						
ESCAP Developed Economies						
Australia			5.9 (94)		35.2 (94)	
Japan			10.6 (93)		24.9 (93)	
New Zealand				6.4 (97)	36.2 (97)	
ESCAP						
LLDC						
LDC						
SIDS						
ASEAN						
SAARC						
Central Asia						
Low-income						
Middle-income						
High-income						
Africa						
Latin America & Carib.						
North America						
Europe						
Other Asia-Pacific						
World						

17. Information and communication technology

Information and communication technology has expanded significantly in Asia and the Pacific over the last decade.

The Asian and Pacific region experienced the fastest growth in the number of fixed telephone lines in the world, from 6 per 100 population in 1995 to 16 in 2006. The region has roughly the same per capita number of fixed telephone lines as Latin America and the Caribbean, but only a third of that of Europe.

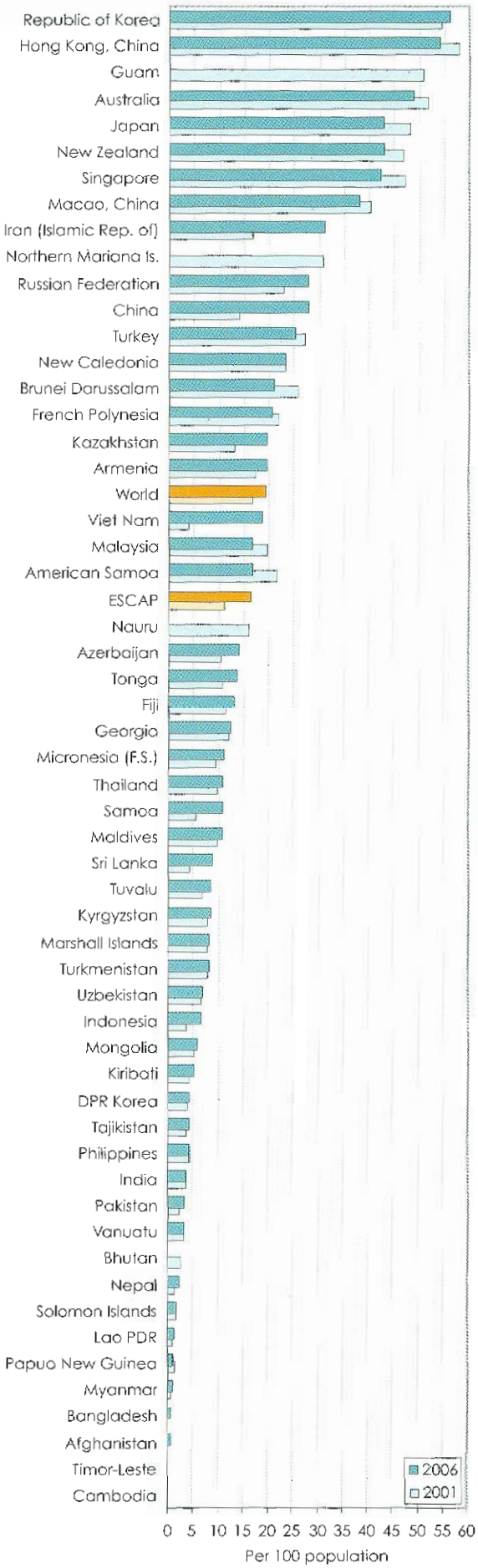
Figure 17.1 Fixed telephone lines per 100 population for major world regions, index of change, 1994-2006



High-income economies have twice as many fixed telephones lines per capita as middle-income economies, and over 11 times the number in low-income economies. The per capita number of fixed telephone lines, however, is decreasing in high-income and developed countries/areas. In Hong Kong, China, for example, this number went down from 59 in 2000 to 54 in 2006; in Australia, it fell from 53 to 49 during the same period. Japan experienced the largest decline, from 50 lines in 2000 to 43 by 2006. This trend can be explained by the explosion in the use of mobile phones since 2000, when just over half (54 per cent) of all people in high-income countries/areas in the region used a mobile phone. By 2006, that number had gone up to 85 per cent.

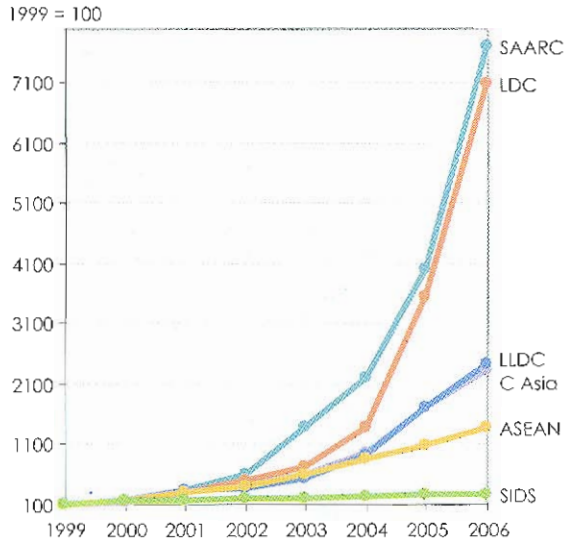
In the poorer parts of Asia and the Pacific, the rapid development of mobile phone networks seems to have stifled the expansion of fixed-line systems. In low-income countries and SAARC member countries — groups which, for a considerable part, overlap — the number of fixed telephone lines per

Figure 17.2 Fixed telephone lines per 100 population in Asia and the Pacific, 2001 and 2006



100 people was just 4.0 and 3.3, respectively, in 2006, in both cases lower than the year before. In least developed countries, the number did not even reach 1 in 2006. At the same time, with mobile phone use as a share of total phone use reaching 77, 75 and 80 per cent, respectively, in low-income countries, SAARC member countries and least developed countries, nowhere else in Asia and the Pacific is the share higher.

Figure 17.3 Mobile phone subscribers in selected Asian and Pacific country/area groupings, 1999-2006



In Cambodia, for example, 97 per cent of all phones are mobile (from 2006 data). The ease of adding mobile phone subscribers compared with wired subscribers has pushed the share of mobile phones to over 90 per cent in Afghanistan and Bangladesh, as shown in figure 17.5.

Three economies in the region have more than one mobile cellular telephone per person. Macao, China, had 137 mobile subscriptions per 100 population in 2006, while Hong Kong, China, had 131 and Singapore 109. Maldives along with the Russian Federation, Thailand and Macao, China, registered the most notable increases in the absolute number of mobile subscribers.

The increase in fixed lines concurrent with improvements in wireless technology has contributed to wider use of the Internet. Between 1999 and 2006, the number of Internet users in Asia and the Pacific increased five-fold, from 2 to 12 per 100 inhabitants, but this is still below the world average of 17 and far below the 69 in North America and 43 in Europe.

Income and access as well as use of the Internet are highly interlinked. In high-income economies in the region, there are, on average, 68 Internet users

Figure 17.4 Mobile phone subscribers per 100 population in Asia and the Pacific, 2001 and 2006

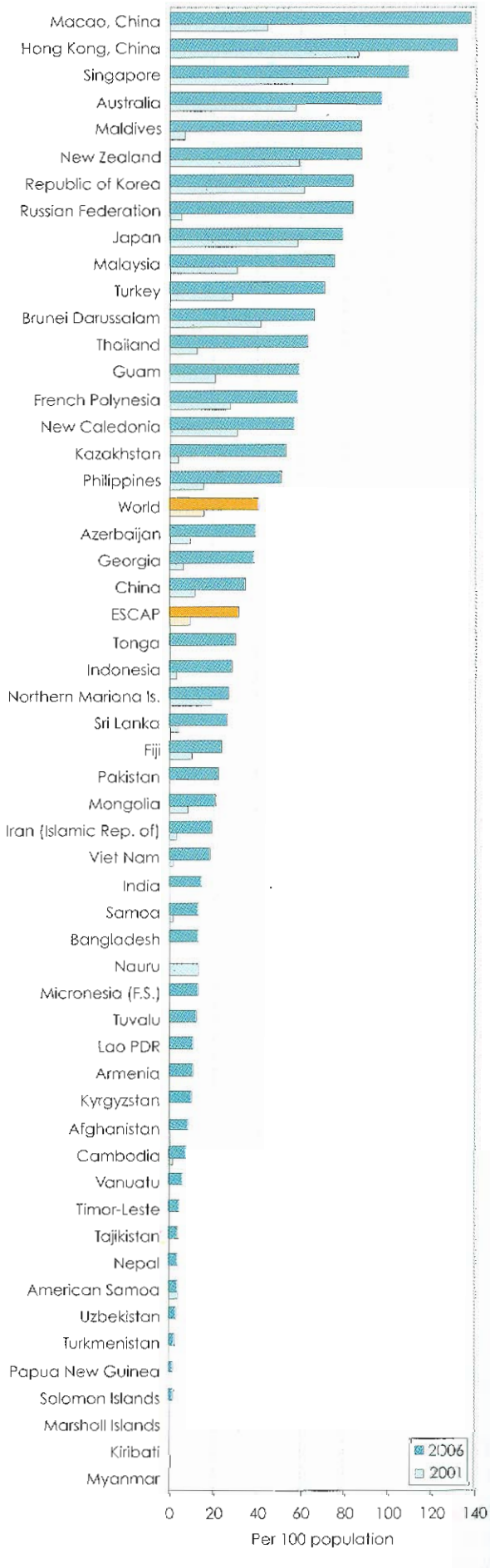
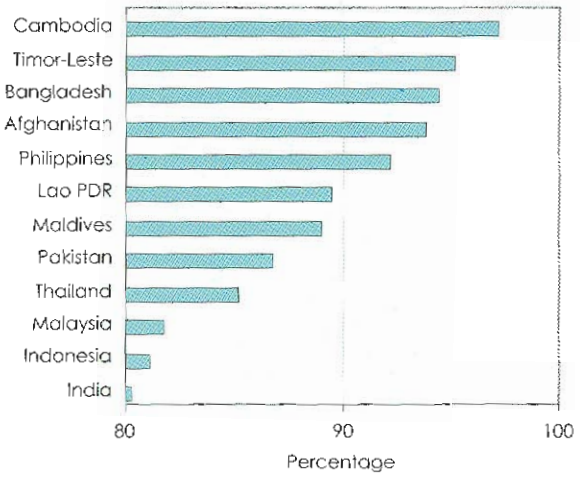


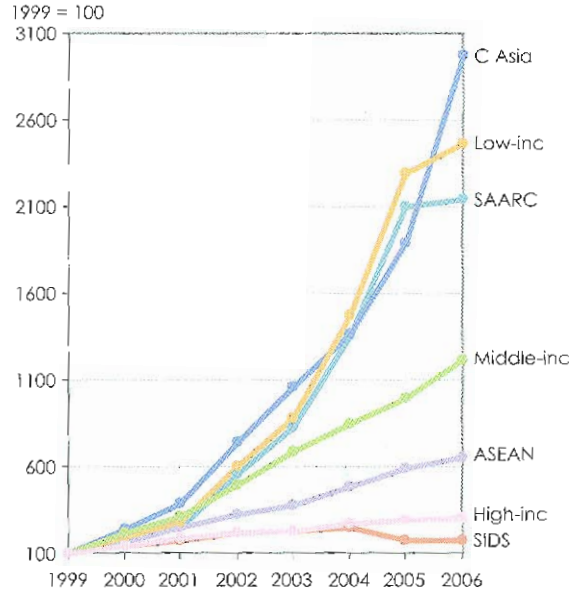
Figure 17.5 Countries with an over 80 per cent mobile phone share of total phone lines, 2006



per 100 inhabitants, compared with 11 in middle-income economies and about 5 in low-income economies.

Among the developing countries, small island developing States have high Internet penetration, 15 per 100 population, compared with 10 in ASEAN member countries and 5 in SAARC member countries. In Guam, there are 39 Internet users per 100 inhabitants, while New Caledonia has about 33.

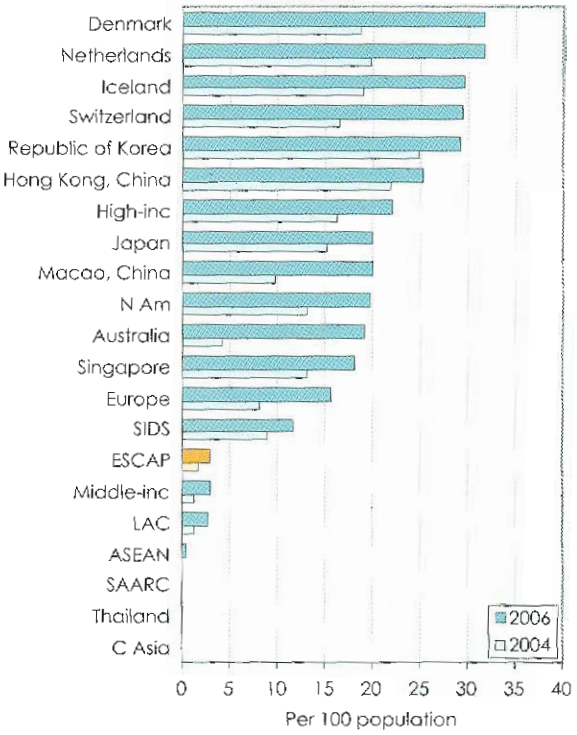
Figure 17.6 Growth in number of Internet users in selected country/area groupings, 1999-2006



The number of Internet users has risen most rapidly in Central Asia, from almost none in 1995 to 6.3 in 2006. SAARC members and low-income economies have also made progress, although their starting levels in 1999 were quite low. Despite some growth in the number of Internet users in least developed countries, they still have not attained a level of at least 1 user per 100 inhabitants.

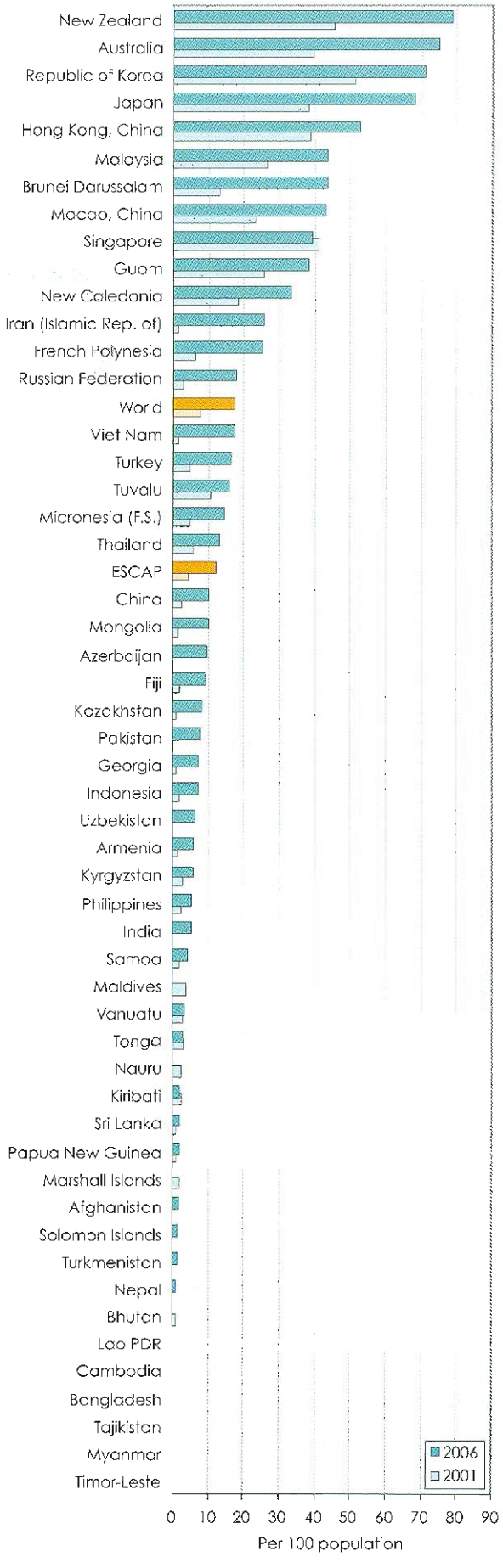
The increase in the number of Internet users has translated into additional demand for broadband connections. The number subscribers in the region is similar to that of Latin America and the Caribbean. In 2006, there were 3 broadband subscribers per 100 people in Asia and the Pacific, compared with 20 in North America and 16 in Europe.

Figure 17.7 Number of broadband users in selected country/area groupings, 2004 and 2006



The Republic of Korea, with 29 subscribers per 100 population, leads the region and ranks as the fifth country with the highest number of subscribers to broadband in the world, behind Denmark, the Netherlands, Iceland and Switzerland. Hong Kong, China, also has a high number of subscribers, at 25, while Australia, Japan and Macao, China, have 20 broadband subscribers per 100 population. The number of broadband subscribers in the rest of the Asian and the Pacific region is still low, with the exception of Singapore, which has 18 subscribers per 100 inhabitants, and New Zealand, which has 14.

Figure 17.8 Internet users per 100 population in Asia and the Pacific, 2001 and 2006



Number of fixed telephone mainlines (per 100 population): A main line is a fixed telephone line connecting the subscriber's terminal equipment to the public switched network. Synonymous with Direct Exchange Line (DEL), and may or may not be the same as an access line or a subscriber. *Aggregates:* Averages are calculated using total population as weight. *Source:* International Telecommunication Union, ICT Statistics Database, (online database, accessed on August 2007).

Number of cellular subscribers (per 100 population): The number of portable telephones, digital or analogue, subscribing to a public mobile telephone service and that provide access to Public Switched Telephone Network (PSTN) using cellular technology. *Aggregates:* Averages are calculated using total population as weight. *Source:* International Telecommunication Union, ICT Statistics Database, (online database, accessed on August 2007).

Mobile phones as a share of total phone lines (per 100 population): The share of total mobile phones in total of fixed and mobiles phones. *Aggregates:* Averages are calculated using total population as weight. *Source:* Calculated by ESCAP using data from International Telecommunication Union, ICT Statistics Database, (online database, accessed on August 2007).

Number of internet users (per 100 population): The number of internet users divided by the total population, expressed per 100 population. The estimation method varies by country or area. The number of actual users is often derived from the number of subscribers indicated by Internet service providers. Dedicated and regular surveys are also used as sources. *Aggregates:* Averages are calculated using total population as weight. *Source:* International Telecommunication Union, ICT Statistics Database, (online database, accessed on August 2007).

Number of broadband internet subscribers (per 100 population): The number of subscribers who access the public Internet at speeds equal to, or greater than, 256 kilobits per second, in one or both directions. The qualifying lowest speed may vary by country. Excludes subscribers with access to data communications via mobile cellular networks. *Aggregates:* Averages are calculated using total population as weight. *Source:* International Telecommunication Union, ICT Statistics Database, (online database, accessed on August 2007).

17.1 Fixed and mobile phones

	Number of fixed telephone mainlines Per 100 population				Number of cellular subscribers Per 100 population			Mobile phone as share of total phone lines Per 100 population		
	1995	2000	2005	2006	2000	2005	2006	2000	2005	2006
East and North-East Asia										
China	3.3	11.4	26.6	27.8	6.7	29.9	34.8	37.1	52.9	55.6
DPR Korea	2.4	2.3	4.4	4.4						
Hong Kong, China	53.3	58.9	53.9	54.1	81.7	123.5	131.5	58.1	69.6	70.8
Macao, China	36.9	40.9	37.9	38.1	32.7	115.8	137.4	44.4	75.3	78.3
Mongolia	3.5	5.0	5.9	5.9	6.5	21.1	21.1	56.8	78.1	78.1
Republic of Korea	41.8	56.2	55.9	56.0	58.3	79.4	83.8	50.9	58.7	59.9
South-East Asia										
Brunei Darussalam	24.0	24.3	22.4	21.0	28.6	62.3	66.5	54.1	73.5	76.0
Cambodia	0.1	0.2	0.2	0.2	1.0	7.6	7.9	80.9	97.0	97.2
Indonesia	1.7	3.2	5.7	6.6	1.8	21.1	28.3	35.5	78.6	81.1
Lao PDR	0.4	0.8	1.3	1.3	0.2	10.8	10.8	23.7	89.4	89.4
Malaysia	16.6	19.9	16.8	16.8	22.0	75.2	75.5	52.5	81.7	81.8
Myanmar	0.4	0.5	0.9	0.9	0.0	0.2	0.4	4.7	20.3	29.8
Philippines	2.1	4.0	4.0	4.3	8.4	41.3	50.8	67.8	91.2	92.2
Singapore	40.5	48.4	42.4	42.3	68.4	100.8	109.3	58.5	70.4	72.1
Thailand	6.0	9.1	11.0	10.9	5.0	48.5	63.0	35.3	81.6	85.2
Timor-Leste			0.3	0.3		3.5	4.9		93.5	95.2
Viet Nam	1.1	3.2	18.8	18.8	1.0	11.4	18.2	23.7	37.7	49.5
South and South-West Asia										
Afghanistan	0.1	0.1	0.3	0.5		4.0	8.1		92.3	93.9
Bangladesh	0.3	0.4	0.8	0.8	0.2	6.4	13.3	36.2	89.4	94.4
Bhutan	0.9	2.2	4.0			4.7			53.6	72.3
India	1.3	3.2	4.6	3.6	0.4	8.2	14.8	9.9	64.2	80.3
Iran (Islamic Rep. of)	8.6	14.9	27.3	31.2	1.5	10.4	19.4	9.2	27.6	38.3
Maldives	5.7	9.1		10.9	2.8		87.9	23.8	86.2	89.0
Nepal	0.4	1.2	1.8	2.2	0.1	0.8	3.8	3.7	31.9	63.6
Pakistan	1.7	2.2	3.4	3.3	0.2	8.3	22.0	9.1	71.0	86.8
Sri Lanka	1.2	4.2	6.0	9.0	2.3	16.2	25.9	35.9	73.0	74.2
Turkey	21.0	27.0	25.9	25.4	23.6	59.6	71.0	46.7	69.7	73.7
North and Central Asia										
Armenia	18.1	17.3	19.7	19.7	0.6	10.5	10.5	3.2	34.9	34.9
Azerbaijan	8.2	9.8	13.0	14.0	5.2	26.7	39.2	34.4	67.2	73.7
Georgia	11.0	10.8	12.7	12.5	4.1	26.3	38.4	27.7	67.3	75.5
Kazakhstan	12.4	12.2	18.3	19.8	1.3	36.4	52.9	9.7	66.6	72.8
Kyrgyzstan	7.9	7.7	8.4	8.4	0.2	10.3	10.3	2.3	55.2	55.2
Russian Federation	16.9	21.9	27.9	27.9	2.2	83.6	83.6	9.2	75.0	75.0
Tajikistan	4.5	3.6	4.3	4.3	0.0	4.1	4.1	0.5	48.6	48.6
Turkmenistan	7.1	8.2	8.2	8.2	0.2	2.2	2.2	2.0	20.9	20.9
Uzbekistan	6.8	6.7	6.7	6.7	0.2	2.7	2.7	3.1	28.6	28.6
Pacific										
American Samoa	19.0	17.9	16.7	16.7	3.5	3.6	3.6	16.3	17.5	17.5
Cook Islands										
Fiji	8.4	10.7	13.3	13.3	6.8	24.2	24.2	38.9	64.6	64.6
French Polynesia	22.4	22.6	20.8	20.7	16.8	46.8	58.5	42.6	69.2	73.9
Guam	48.2	48.0	50.9		17.6	59.4	59.4	26.8	55.1	
Kiribati	2.6	4.0	5.1	5.1	0.4	0.7	0.7	8.1	11.8	11.8
Marshall Islands	6.6	7.8	8.3	8.3	0.9		1.1	9.1	11.8	11.8
Micronesia (F.S.)	7.5	9.0	11.2	11.2		12.7	12.7		53.2	53.2
Nauru	14.1	15.7	16.0		10.5	13.0		40.0	45.5	
New Caledonia	22.8	23.8	23.3	23.3	23.3	56.7	56.7	49.5	70.8	70.8
Niue										
Northern Mariana Is.	26.3	30.3			4.3	27.3	27.3	12.5	100.0	
Palau									43.3	53.2
Papua New Guinea	1.0	1.3	1.1	1.1	0.2	1.3	1.3	11.7	54.1	54.1
Samoa	4.6	4.9	10.9	10.9	1.4	13.4	13.4	22.7	55.2	55.2
Solomon Islands	1.8	1.8	1.6	1.6	0.3	1.3	1.3	13.5	44.8	44.8
Tonga	6.8	9.8	13.7	13.7	0.2	29.8	29.8	2.0	68.6	68.6
Tuvalu	5.5	7.0	8.5	8.5		12.4	12.4		59.1	59.1
Vanuatu	2.5	3.5	3.2	3.2	0.2	5.9	5.9	5.7	64.5	64.5
ESCAP Developed Economies										
Australia	49.3	52.5	50.2	48.8	44.7	91.4	97.0	46.0	64.5	66.5
Japan	49.6	48.8	45.3	43.0	52.6	75.3	79.3	51.9	62.4	64.8
New Zealand	46.8	47.5	42.9	42.9	40.0	87.6	87.6	45.7	67.1	67.1
ESCAP	6.1	10.1	16.1	16.2	6.5	25.5	31.5	26.7	61.6	69.2
LLDC	5.3	5.2	6.3	6.6	0.9	9.3	13.3	7.4	54.0	62.3
LDC	0.3	0.5	0.8	0.9	0.2	4.7	9.3	26.0	72.2	80.0
SIDS	16.1	19.3	16.0	15.4	24.1	36.0	39.5	28.4	63.1	64.4
ASEAN	2.9	4.8	8.3	8.6	4.3	26.7	33.8	37.7	70.2	74.5
SAARC	1.2	2.7	3.9	3.3	0.3	7.9	15.3	12.6	67.5	82.2
Central Asia	9.0	8.8	10.7	11.1	1.3	14.7	20.1	9.4	46.5	48.9
Low-income	1.3	2.7	4.6	4.0	0.4	7.7	14.5	12.9	63.3	77.2
Middle-income	5.3	11.6	22.5	23.5	6.3	34.5	40.2	35.1	60.1	62.9
High-income	47.6	51.0	48.2	46.7	54.0	80.1	84.6	51.3	62.3	64.4
Africa	1.7	2.4	3.0	3.1	1.9	15.2	20.9	32.2	82.7	86.7
Latin America & Carib.	9.0	14.7	17.7	17.5	12.2	43.5	54.2	44.0	69.8	74.0
North America	59.9	68.3	59.3	57.8	37.9	69.7	75.0	35.6	53.9	56.3
Europe	39.1	46.0	45.7	45.0	47.4	91.8	101.4	44.2	67.1	69.6
Other Asia-Pacific	11.1	20.7	22.1	22.5	26.1	43.9	51.2	27.0	61.7	64.0
World	12.2	16.1	19.5	19.4	12.2	34.4	40.9	43.1	63.8	67.9

17.2 Internet

	Number of internet users						Number of broadband internet subscribers					
	Per 100 population						Per 100 population					
	1999	2000	2003	2004	2005	2006	1999	2000	2003	2004	2005	2006
East and North-East Asia												
China	0.7	1.8	6.1	7.2	8.4	10.4			0.9	1.9	2.8	3.9
DPR Korea												
Hong Kong, China	21.2	27.8	47.2	50.3	50.1	53.0	1.3	6.7	18.6	22.0	23.6	25.2
Macao, China	9.3	13.9	26.8	32.2	37.0	43.2		0.9	6.2	9.7	14.8	19.9
Mongolia	0.5	1.3	5.8	7.6	10.1	10.1			0.0	0.0	0.1	0.1
Republic of Korea	23.8	41.4	61.1	65.7	68.4	71.1	0.6	8.4	23.4	24.8	25.2	29.3
South-East Asia												
Brunei Darussalam	7.8	9.0	19.9	30.1	36.1	43.4			1.1	1.8	2.2	2.7
Cambodia	0.0	0.1	0.3	0.3	0.3	0.3				0.0	0.0	0.0
Indonesia	0.4	0.9	3.8	5.0	7.2	7.2			0.0	0.0	0.1	0.1
Lao PDR	0.0	0.1	0.3	0.4	0.4	0.4						
Malaysia	12.8	21.4	34.5	38.6	42.4	43.8			0.4	1.0	2.0	3.5
Myanmar			0.0	0.0	0.1	0.2						
Philippines	1.5	2.0	4.9	5.3	5.5	5.5			0.1	0.1	0.2	0.2
Singapore	24.1	32.4	51.2	57.9	39.8	39.2	0.8	1.9	10.1	13.0	15.3	18.2
Thailand	2.1	3.7	9.6	11.0	11.3	13.1			0.1	0.1	0.2	0.2
Timor-Leste					0.1	0.1						
Viet Nam	0.1	0.3	3.8	7.6	12.7	17.2			0.0	0.1	0.3	0.6
South and South-West Asia												
Afghanistan			0.1	0.1	1.0	1.7						
Bangladesh	0.0	0.1	0.2	0.2	0.3	0.3						
Bhutan	0.1	0.3	2.0	2.6	3.1							
India	0.3	0.5	1.7	3.2	5.4	5.4			0.0	0.0	0.1	0.2
Iran (Islamic Rep. of)	0.4	1.0	7.2	9.5	10.9	25.5			0.0	0.0	0.0	0.7
Maldives	1.1	2.2	5.9	5.8					0.2	0.2		1.6
Nepal	0.2	0.2	0.4	0.5	0.8	0.9						
Pakistan	0.1	0.2	5.4	6.6	6.8	7.6				0.0	0.0	0.0
Sri Lanka	0.4	0.7	1.5	1.4	1.7	2.1			0.0	0.1	0.1	0.1
Turkey	2.2	3.7	8.4	14.2	15.3	16.6			0.3	0.8	2.2	3.7
North and Central Asia												
Armenia	1.0	1.3	4.6	5.0	5.3	5.8				0.0	0.1	0.1
Azerbaijan	0.1	0.2	4.2	4.9	8.1	9.8			0.0	0.0	0.0	0.0
Georgia	0.4	0.5	2.6	3.9	6.1	7.5			0.0	0.0	0.1	0.6
Kazakhstan	0.5	0.7	2.0	2.7	4.1	8.4			0.0	0.0	0.0	0.2
Kyrgyzstan	0.2	1.1	4.0	5.2	5.3	5.6				0.0	0.1	0.1
Russian Federation	1.0	2.0	8.3	12.9	15.2	18.0			0.2	0.5	1.1	2.0
Tajikistan	0.0	0.1	0.1	0.1	0.3	0.3						
Turkmenistan	0.1	0.1	0.4	0.7	1.0	1.3						
Uzbekistan	0.0	0.5	1.9	2.6	3.3	6.3			0.0	0.0	0.0	0.0
Pacific												
American Samoa												
Cook Islands												
Fiji	0.9	1.5	6.7	7.2	8.3	9.4					0.8	0.8
French Polynesia	3.4	6.3	14.0	17.8	21.5	25.0			0.4	1.7	4.3	7.0
Guam	8.5	16.2	34.0	36.4	38.5	38.5			1.1	1.1	1.1	
Kiribati	1.2	1.8	2.3	2.2	2.2	2.2						
Marshall Islands	1.0	1.6	2.6	3.5								
Micronesia (F.S.)	2.8	3.7	9.3	10.8	12.6	14.4			0.0	0.0	0.0	0.0
Nauru			2.6	2.6	2.6							
New Caledonia	5.7	14.0	26.2	30.2	32.1	33.2			0.7	2.2	4.1	4.1
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	0.7	0.9	1.4	1.5	1.8	1.8						
Samoa	0.3	0.6	2.8	3.1	3.4	4.5				0.0	0.0	0.0
Solomon Islands	0.5	0.5	0.5	0.6	0.8	1.6				0.0	0.1	0.1
Tonga	1.0	2.4	3.0	3.0	3.0	3.0			0.0	0.3	0.6	0.6
Tuvalu		5.3	15.0	15.5	16.2	16.2				0.1	0.3	0.3
Vanuatu	0.5	2.1	3.6	3.5	3.5	3.5			0.0	0.0	0.0	0.0
ESCAP Developed Economies												
Australia	29.6	34.5	56.8	65.3	70.4	75.1			2.6	4.2	8.9	19.2
Japan	21.4	29.9	48.3	62.2	66.6	68.3	0.2	0.7	11.7	15.3	17.5	20.1
New Zealand	29.0	39.3	53.5	58.9	68.4	78.8		0.1	2.1	4.8	8.2	14.2
ESCAP	1.9	3.1	7.0	8.9	10.6	11.9				1.7	2.2	2.9
LLDC	0.2	0.4	1.4	1.8	2.6	4.0				0.0	0.0	0.1
LDC	0.1	0.1	0.2	0.2	0.4	0.5						
SIDS	8.7	11.9	19.3	21.6	15.1	15.0				9.1	10.0	11.8
ASEAN	1.6	2.6	5.9	7.5	9.3	10.2			0.2	0.2	0.3	0.5
SAARC	0.2	0.5	1.9	3.1	4.9	5.0				0.0		0.2
Central Asia	0.2	0.5	2.2	2.9	4.0	6.3			0.0	0.0	0.0	0.1
Low-income	0.2	0.4	1.9	3.3	5.1	5.4						
Middle-income	0.9	2.0	6.4	8.0	9.4	11.4			0.6	1.3	2.0	2.8
High-income	22.7	33.0	51.9	62.5	66.1	68.4		2.8	13.4	16.3	18.3	22.0
Africa	0.4	0.6	1.8	2.6	3.7	4.7						
Latin America & Carib.	2.0	3.9	9.9	11.7	15.2	18.2			0.5	1.2	1.8	2.7
North America	36.5	43.9	55.6	62.9	66.5	69.0	1.1	2.7	10.0	13.1	16.5	19.7
Europe	12.9	18.2	32.3	35.7	39.2	43.1		0.4	4.9	8.2	11.8	15.6
Other Asia-Pacific	6.8	9.2	13.6	14.6	16.2	19.3			5.4	6.8	6.2	7.1
World	4.7	6.5	11.5	13.7	15.6	17.4	0.1	0.4	1.7	2.5	3.3	4.3

18. Transport infrastructure

The strategic supply-driven provision of transport infrastructure in many Asian and Pacific countries has significantly contributed to their economic growth and integration into the world economy.

Although the focus herein is on investment in road and railway infrastructure, it should be noted, that seaport and airport infrastructure stocks have contributed significantly to transport infrastructure growth in the region (ESCAP, 2005a).

The density of roads per unit of surface area, measured in kilometres of road per 1,000 square kilometres of land, is an indicator of geographical accessibility. In Asia and the Pacific, there is an extremely wide range of road density, from 33 km per 1,000 square km in Kazakhstan to 4,627 km per 1,000 square km in Singapore. In fact, Singapore, along with Macao, China, and Hong Kong, China, is among those with the highest road density in the world (table 18.1).

Among the countries with the largest increase in the road network, Bhutan, Nepal, Viet Nam and Lao PDR more than doubled their road density between 1990 and 2004, Republic of Korea and India also almost doubled their road networks between the 1990s and 2000s, as shown in figure 18.1.

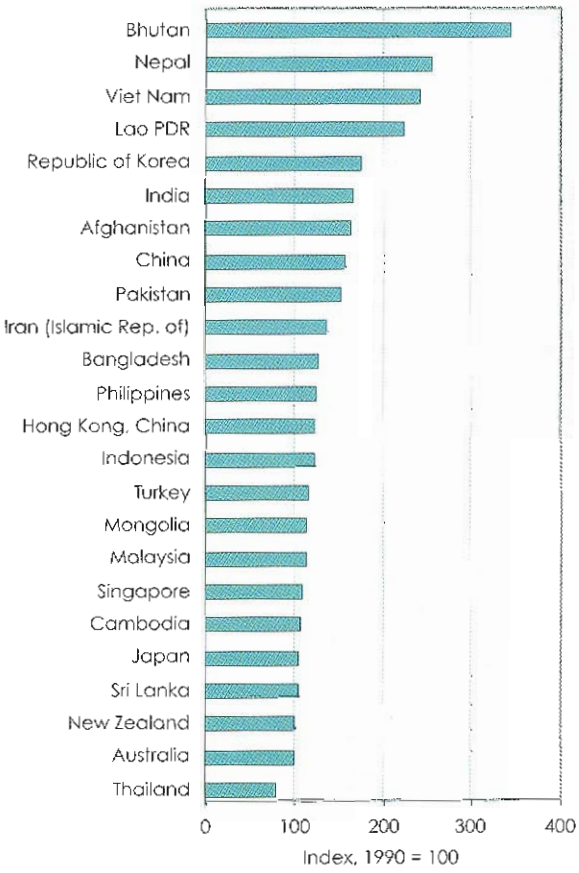
In addition to increasing the road length, countries have also invested in road widening schemes that have significantly contributed to the total lane width. According to some estimates, about US$ 170 billion was invested in improving Asian roads in 2006, accounting for roughly two thirds of all transport infrastructure expenditures in the region.

Yet, road densities and effective network access levels in most Asian countries continue to be much lower than in European or North American countries of similar geography and settlement patterns. This implies a great need for further transport infrastructure development in the region.

The need for such investments is also reflected in the share of paved roads in all roads. Although this share has increased considerably in many countries during the last decade, it continues to be less than one quarter in some, such as Cambodia, the Democratic People's Republic of Korea, Myanmar and Papua New Guinea, according to the latest available estimates.

Figure 18.2 shows the percentage of paved roads for 1990 and latest available data. All roads in Macao, China, Hong Kong, China and Singapore

Figure 18.1 Index of change in road density in Asia and the Pacific, 1990-latest available data

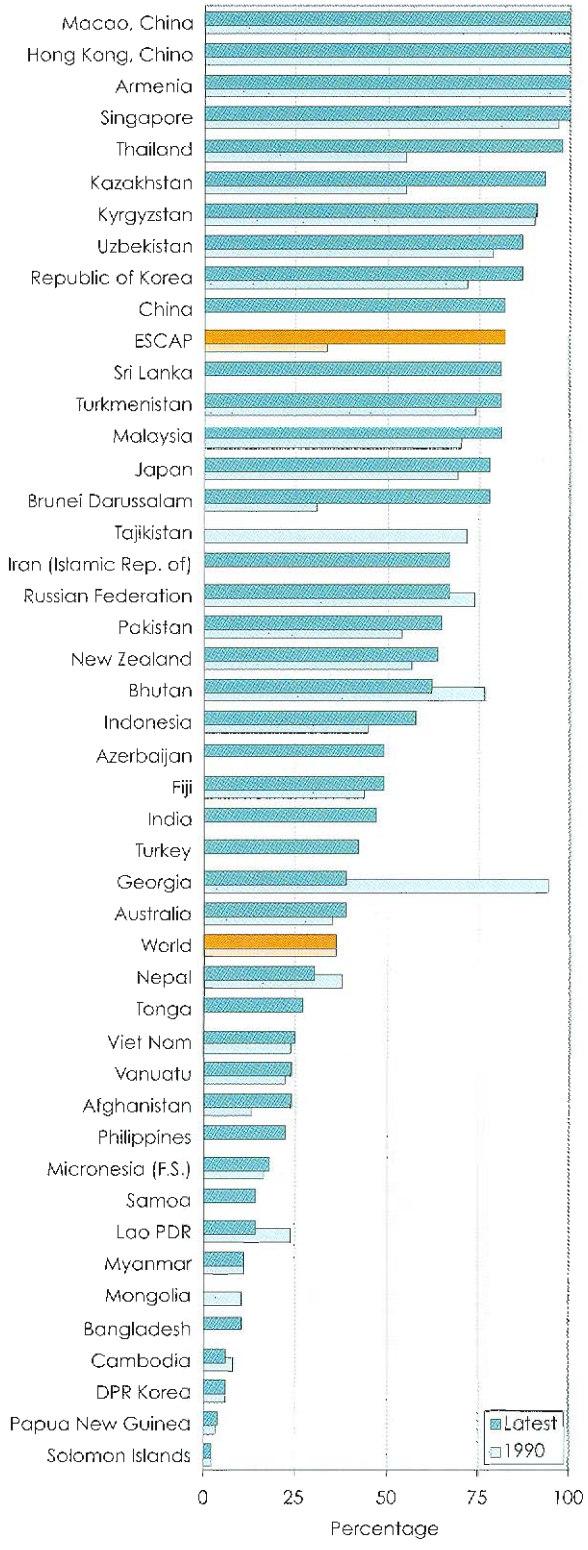


are paved. What is notable is that Thailand experienced one of the highest increases in the entire region, from 55 per cent in 1990 to 98 per cent in 2000. The percentage of roads paved also increased, at varying rates, in Kazakhstan, the Republic of Korea, Malaysia, Brunei Darussalam, Pakistan, and Afghanistan.

While Brunei Darussalam more than doubled the percentage of roads paved, from 31 per cent in 1990 to 78 per cent by 2004, this share increased in Afghanistan to 24 per cent from only 13 per cent in 1990. Kazakhstan also registered a sizeable rise in the proportion of roads paved, from 55 per cent at the beginning of the 1990s to 93 per cent by the mid-2000s.

Although railway density in Asia and the Pacific remains low in comparison with more advanced regions, it is the highest among the developing regions of the world. According to 2005 figures, Asia and the Pacific has a railway density of 7 km per 1,000 square km, which places it ahead of Africa, at 4, and Latin America and the Caribbean, at 6. North America and Europe, on the other hand, have railway densities twice as high and six times as high, respectively, as that of Asia and the Pacific.

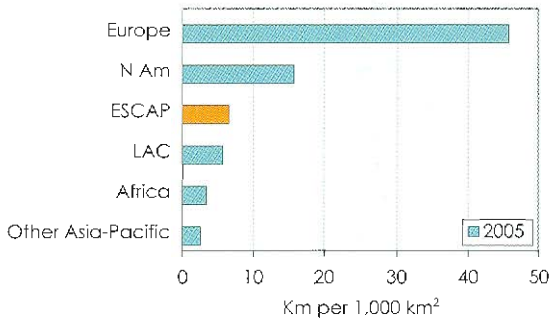
Figure 18.2 Proportion of paved roads to total roads in Asia and the Pacific, 1990-latest available data



According to ESCAP (2005a), barely half of the countries in the region have constructed a sizeable intercity railway system. Moreover, in the recent years, only a handful of Asian developing countries have invested extensively in railways. Almost all the increase in the region's railway length is attributed to the improvement in China and, to a lesser extent, the Republic of Korea.

Japan, however, continues to have, by far, the highest railway density in the region, at 55 km per 1,000 square km, followed by the Republic of Korea, at 34 km per 1,000 square km, and some Central Asian countries, such as Armenia, Azerbaijan and Georgia, which have densities of about 20 km per 1,000 square km. Still, there are some signs of a possible revival of railways across the region, which would have substantial environmental and safety benefits.

Figure 18.3 Railway density of the regions of the world, 2005



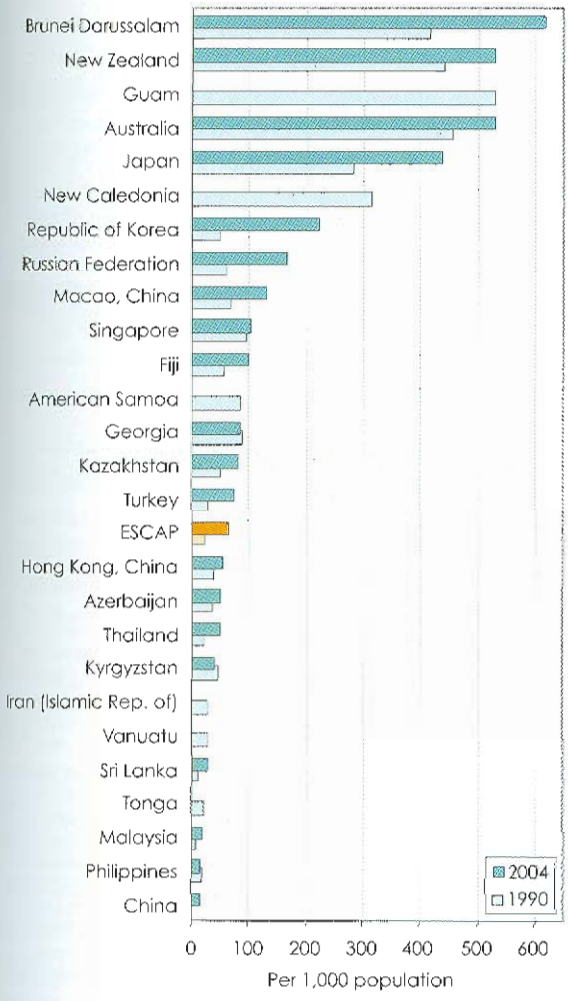
Motorization rates, measured as the number of passenger cars in use per 1,000 people, have increased appreciably in the Asian and Pacific region. While this has improved mobility, contributing to economic growth, it has also led to an increase in pollution levels and traffic accidents.

Brunei Darussalam can lay claim to the highest number of passenger cars per 1,000 people, estimated at 618 in 2004. It also recorded the largest increase in the entire region since 1990, when it had 416 passenger cars per 1,000 people. Motorization rates also rose considerably in Japan and the Republic of Korea, to 438 and 223, respectively, an increase of more than 150 cars per 1,000 people.

Populous countries, on the other hand, have low motorization rates. China and India, for example, have rates of just 13 and 8 per 1,000 people, respectively. Some ASEAN countries also have low motorization rates. Myanmar, Malaysia, Indonesia and the Philippines have less than 20 passenger cars per 1,000 people.

It should be noted, however, that personal mobility levels in many South and South-East Asian countries are considerably higher than the relative number of cars in use suggests, as two- and three-wheelers constitute more than two thirds of all motorized vehicles in Cambodia, Bangladesh, Nepal, Sri Lanka, Indonesia, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam, among other developing countries.

Figure 18.4 Number of passenger cars in Asia and the Pacific, 1990 and 2004



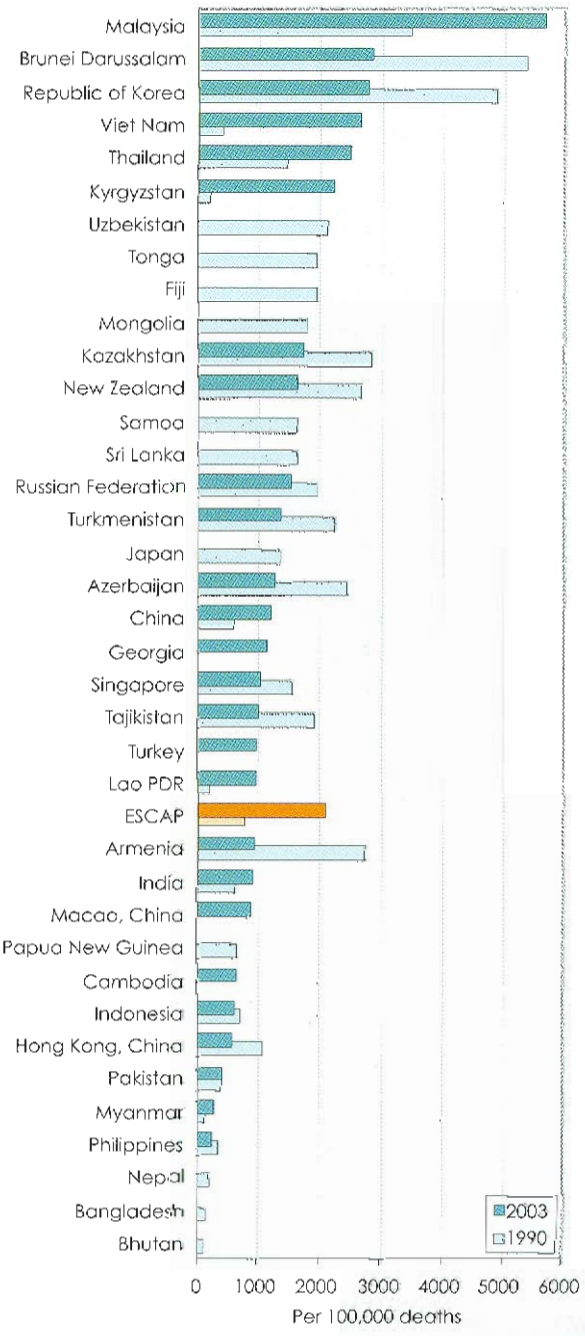
As motorization rates continue to rise globally, leading to higher vehicle densities, road traffic accidents have increased as well. Worldwide, road accidents kill an estimated 1.2 million people and injure or disable up to 50 million people per year. Most road traffic deaths occur in poor countries, where these types of accidents rank as a leading cause of death.

The upgrading of the road network in Asia and the Pacific has been followed by rapidly increasing traffic levels, which have contributed to one of the worst road safety records in the world. More than half of the world's traffic fatalities occur in Asia and the Pacific, even though only one in five of the world's motor vehicles are registered in this region.

Roughly half of all road fatalities in the Asian and Pacific region occur in China and India, although, in terms of the ratio to total number of deaths, they are considerably lower than in other parts of the region. In China 1,205 out of every 100,000 deaths was due to traffic accidents in 2003, up from 592 in the early 1990s. In India, 887 out of every 100,000 deaths in 2003, compared to 618 in 1990, were traffic-related.

Malaysia ranks highest in the region, with traffic accidents causing 5,669 out of every 100,000 deaths. In Brunei Darussalam and the Republic of Korea, there are 2,837 and 2,780 traffic fatalities per 100,000 deaths, respectively. In Viet Nam and Thailand, on the other hand, the contribution of traffic accidents to all deaths was slightly lower in 2003. It is noteworthy, however, that Brunei Darussalam and the Republic of Korea experienced the largest reduction in the share of traffic fatalities in all deaths between 1990 and 2003, while Malaysia, Viet Nam and Thailand are among the countries with the highest increase in this share during the same period, as shown in figure 18.5.

Figure 18.5 Estimated number of traffic fatalities in Asia and the Pacific, 1990 and 2003



Railway density (km per 1,000 km²): The length of rail lines divided by the land area expressed in 1,000 km². Rail lines are the length of railway route available for train service measured in kilometres, irrespective of the number of parallel tracks. *Aggregates:* Averages are calculated using land area as weight. *Source:* World Bank, *World Development Indicators* (online database, accessed in June 2007).

Roads density (km per 1,000 km²): The total road network divided by the land area. Total road network includes motorways, highways, and main or national roads, secondary or regional roads, and all other roads measured in kilometres in a country. *Aggregates:* Averages are calculated using land area as weight. Missing data for roads density have been imputed. *Source:* World Bank, *World Development Indicators* (online database, accessed in June 2007).

Paved roads (percentage of total roads): The share of roads surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, concrete, or cobblestones, expressed as a percentage of the length of all roads. *Aggregates:* Averages are calculated using land area as weight. Missing data for paved roads have been imputed. *Source:* World Bank, *World Development Indicators* (online database, accessed in June 2007).

Passenger cars in use (per 1,000 population): The number of passenger cars, expressed per 1,000 population. Covers road motor vehicles designed for the conveyance of passengers and seating not more than nine persons including the driver. Taxies, jeep-type vehicles and station wagons are included. Special-purpose vehicles, such as two-wheeled or three-wheeled cycles or motorcycles, trams, trolley-buses, ambulances, hearses, and military vehicles operated by police or other governmental security organizations, are excluded. *Aggregates:* Averages are calculated using total population as weight. *Source:* United Nations Common database (online database, accessed in August 2007).

Traffic accident casualties (per 100,000 deaths): The total number of deaths caused by traffic accidents during a given period divided by the total number of deaths from all causes during the same period, expressed per 100,000 deaths. *Aggregates:* Averages are calculated as the sum of accident casualties divided by the sum of total deaths. Missing data for traffic accident casualties have been imputed. *Source:* Asia-Pacific Road Accident Database (APRAD) (online database, accessed in June 2007).

18.1 Railways and roads infrastructure

	Railway density			Roads density				Paved roads			
	Km per 1,000 km²			Km per 1,000 km²				% of total roads			
	1990	2000	2005	1990	2000	2003	2004	1990	2000	2003	2004
East and North-East Asia											
China	6	6	7	127	151	195	201			79	81
DPR Korea				231				6			
Hong Kong, China				1 499		1 842	1 850	100		100	100
Macao, China					16 200	12 778	12 929	100	100	100	100
Mongolia	1	1	1	27	31			10	4		
Republic of Korea	31	32	34	574		985	1 016	72		77	87
South-East Asia											
Brunei Darussalam				192				31			78
Cambodia	3	3	4	203			217	8			6
Indonesia				159	196			45	57		
Lao PDR				61		135		24		14	
Malaysia	5	5	5	262		281	300	70		81	81
Myanmar	5			38				11			
Philippines	2			538	676	671			21	22	
Singapore				4 176	4 584	4 606	4 627	97	100	100	100
Thailand	8	8		141	112			55	98		
Timor-Leste											
Viet Nam	9	10	9	295	693		717	24			
South and South-West Asia											
Afghanistan				32			53	13			24
Bangladesh	21	21	22	1 444		1 838				10	
Bhutan				50		171		77		62	
India	21	21	21	673	1 115				47		
Iran (Islamic Rep. of)	3	4	4	80		110				67	
Maldives											
Nepal			0	48		111	122	38			30
Pakistan	11	10	10	219	311	330	335	54	56	60	65
Sri Lanka	22			1 439		1 505				81	
Turkey	11	11	11	477	463	554	555		35		
North and Central Asia											
Armenia		30	26			271		99		100	
Azerbaijan			26		332		715				49
Georgia		22	19		293	291	291	94		39	39
Kazakhstan		5	5			33	33	55		94	93
Kyrgyzstan			2					90			
Russian Federation		5	5		32			74			
Tajikistan			4		198			72			
Turkmenistan			5					74			
Uzbekistan		9	9					79			
Pacific											
American Samoa											
Cook Islands											
Fiji			33	167				44			
French Polynesia											
Guam											
Kiribati											
Marshall Islands											
Micronesia (F.S.)								16			
Nauru											
New Caledonia											
Niue											
Northern Mariana Is.											
Palau											
Papua New Guinea				41				3			
Samoa											
Solomon Islands				43				2			
Tonga											
Tuvalu											
Vanuatu								22			
ESCAP Developed Economies											
Australia	1	1	1	105		105		35			
Japan	56	55	55	3 057	3 200			69	77		
New Zealand	15			346	343	347		57	63	64	
ESCAP	7	6	7	226	191			48			
LLDC			5					15			
LDC	7	11	8	143		189				17	
SIDS				56	62	63	63	5	6	6	6
ASEAN				180	226			37	49		
SAARC	19	19	18	519	817				43		
Central Asia		6	6								
Low-income	13	13	12	322	482				33		
Middle-income		6	6		100	115					
High-income	4	4	4	247	257			38	42		
Africa	4	4	4	58				26			
Latin America & Carib.	6		6	150				17			
North America	13	17	16	387	412	429	430	47		51	50
Europe	47	49	46	1 099		1 107		82		86	
Other Asia-Pacific											
World											

18.2 Passenger cars and traffic casualties

	Passenger cars in use					Traffic accidents casualties				
	Per 1,000 population					Per 100,000 deaths				
	1990	1995	2000	2003	2004	1990	1995	2000	2003	2004
East and North-East Asia										
China	1.4	3.4	6.7	11.4	13.3	592	857	1 118	1 205	
DPR Korea										
Hong Kong, China	37.7	48.8	52.5	51.7	52.0	1 056	780	500	548	
Macao, China	67.2	85.0	111.1	123.6	130.4		1 188	858	854	
Mongolia						1 805				
Republic of Korea	48.4	133.4	172.8	216.4	222.7	4 893	4 163	4 056	2 780	2 494
South-East Asia										
Brunei Darussalam	416.3	481.4	548.8	592.9	618.0	5 384	6 569	4 404	2 837	
Cambodia	0.5	0.7	0.6				74	308	617	
Indonesia	7.2	10.7	14.4	17.6		687			606	
Lao PDR						183	600		955	
Malaysia	8.6	12.4	15.0	17.5	19.1	3 495	5 758	5 701	5 669	
Myanmar	1.9	3.4	3.8	3.9	4.0	130	209	234	273	
Philippines	17.5	23.7	28.3	13.5	14.8	345			244	
Singapore	95.1	104.7	103.1	101.2	102.5	1 550	1 337	1 118	1 041	
Thailand	22.5	33.3	43.9	54.7	47.8	1 451	3 754	2 364	2 479	
Timor-Leste										
Viet Nam						395			2 648	
South and South-West Asia										
Afghanistan	2.4	0.1	0.3							
Bangladesh	0.4	0.4				135		253		
Bhutan						96				
India	3.1	4.0	5.9	7.8		618	764	863	887	
Iran (Islamic Rep. of)	27.5	13.2	17.2							
Maldives	4.6	4.0	7.3	7.0	6.9					
Nepal	1.1	1.6	2.0			212	336	412		
Pakistan	4.9	6.1	7.4	8.4	8.8	396	472	434	414	447
Sri Lanka	10.2	12.7	17.9	23.4	26.6	1 613	1 393	1 602		
Turkey	28.8	48.8	64.9	66.1	75.0		1 443	1 372	963	
North and Central Asia										
Armenia						2 749	1 079	806	928	
Azerbaijan	36.1	35.7	40.8	44.8	48.6	2 463	1 760	1 086	1 263	1 383
Georgia	88.3	71.7	51.9	55.9	83.5		887	996	1 123	
Kazakhstan	49.0	65.0	66.9	76.6	79.7	2 842	1 714	1 195	1 708	
Kyrgyzstan	44.4	43.1	38.4	37.0	38.0	193	1 675	1 547	2 213	
Russian Federation	60.3	95.2	137.3	160.0	166.5	1 967	1 602	1 330	1 540	
Tajikistan		28.8	19.0			1 919	1 110	934	992	980
Turkmenistan						2 248	1 261		1 372	
Uzbekistan						2 116	1 184	1 283		
Pacific										
American Samoa	84.9	95.0								
Cook Islands										
Fiji	55.3	65.1	76.1	91.7	98.4	1 947	1 734			
French Polynesia										
Guam	530.2	549.6	418.9							
Kiribati										
Marshall Islands										
Micronesia (F.S.)										
Nauru										
New Caledonia	315.7	274.5	404.6	423.5						
Niue										
Northern Mariana Is.										
Palau										
Papua New Guinea		4.2	4.6			655				
Samoa						1 626				
Solomon Islands										
Tonga	21.2	82.1	51.0	70.9		1 961				
Tuvalu										
Vanuatu	26.8	40.6	15.8							
ESCAP Developed Economies										
Australia	454.7	479.3		522.4	529.3					
Japan	282.7	356.1	415.1	432.5	438.2	1 367	1 165	1 055		
New Zealand	440.1	453.3	494.5	510.5	530.3	2 686	2 125	1 648	1 626	
ESCAP	23.0	29.7	33.5	41.3	63.1	781	928	1 009		
LLDC						1 454	1 086	990		
LDC	0.9	1.1				142		282		
SIDS	101.7	59.6	59.5	107.4	96.7	981	855	794	754	
ASEAN	11.5	16.3	20.7	21.9		675			1 202	
SAARC	3.1	3.9	6.1	8.1		539	665	759	777	
Central Asia						2 205	1 393	1 194	1 403	
Low-income	3.1	4.0	5.9	7.9		529	668	783	821	
Middle-income	10.9	16.0	22.6	27.6	31.1	901	1 093	1 162	1 242	
High-income	239.0	305.4	337.1	374.3	380.2	2 168	1 778	1 628		
Africa	15.3	16.0								
Latin America & Carib.		70.1	87.1							
North America	700.5	691.3	727.3	738.7						
Europe	293.5	339.2	381.3	403.0	408.6					
Other Asia-Pacific										
World										

19. Financing for development

The lessons of the Asian financial crisis of the late 1990s highlight the importance of monitoring and managing external debt flows effectively.

External debt

For the developing economies in Asia and the Pacific, the net external debt relative to GDP in 2005 stood at 23.4 per cent. Figures 19.1 and 19.2 show the downward trends following the Asian financial crisis in 1998, when the region displayed an average rate of 37.7 per cent. As expected, the downward trend is even more pronounced for the ASEAN region, which includes "crisis" economies such as Thailand, Malaysia and Indonesia among its 10 members. Starting from an average rate of 98.4 per cent, the ASEAN region has marked a steady decline to 44.1 per cent in 2005. Compared with another region that "hosted" a financial crisis in the late 1990s — Latin America and the Caribbean — the Asian and Pacific region has achieved a stronger reduction in net external debt relative to GDP, despite a sharp decline in Latin America and the Caribbean from 40.5 per cent in 2004 to 29.8 per cent in 2005. The highest levels of net external debt in the Asian and Pacific region are found in Central Asian countries and landlocked developing countries, which had average rates of 54.1 and 56.2 per cent, respectively, in 2005.

Figure 19.1 Net external debt (relative to GDP) in Asian and Pacific developing economies, Africa and Latin America and the Caribbean, 1990-2005

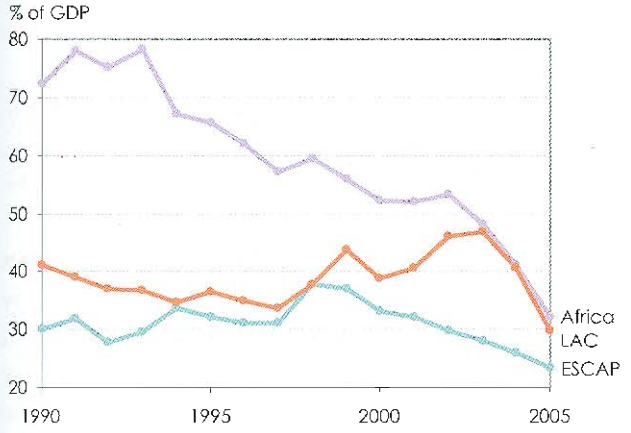
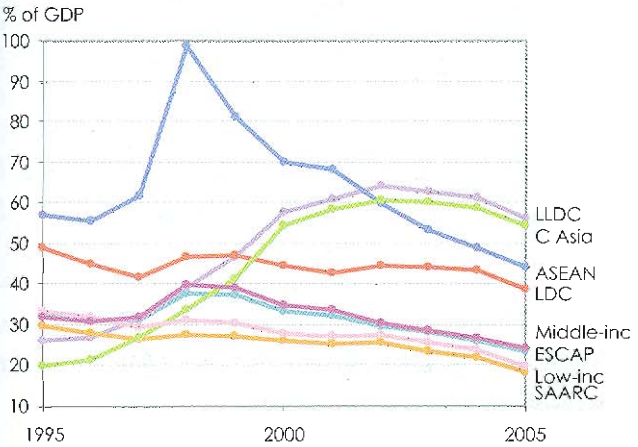


Figure 19.2 Net external debt (relative to GDP) in selected Asian and Pacific country/area groupings, 1995-2005



Debt-service payments relative to export earnings have also marked a decline since the late 1990s, from about 10 per cent to 4.9 per cent in 2005. The region thus has less debt-service obligations than Latin America and the Caribbean, which also marked an impressive decline, from 21.3 per cent in 2000 to 14.8 per cent in 2005. Africa is doing as well on that indicator as the Asian and Pacific developing economies, with a steady decline from the disturbingly high level of 28.8 per cent in the early 1990s to 7.9 per cent in 2005. At the country level in the Asian and Pacific region, the highest rates are found in Turkey (20.1 per cent), the Philippines (12.4 per cent) and the Russian Federation (11.1 per cent) in 2005.

Foreign direct investment

During the period 2002-2006, FDI inflows accounted for 56 per cent of all net capital flows to developing countries according to the World Bank, while portfolio flows, official flows and other capital transactions (e.g. bank loans) accounted for 16, 10 and 19 per cent, respectively (World Bank, 2007).

FDI inflows as a percentage of gross fixed capital formation (GFCF) has remained quite stable in the Asian and Pacific region, on average, ranging from 5 to 7.5 per cent between 2000 and 2006, or 6 per cent from 2001 to 2005. The figure for low-income countries is by far the highest, averaging 44 per cent from 2001 to 2005. Among the country groupings in Asia and the Pacific, the figure for small island developing States was highest, with an average of 50 per cent over the period 2001 to 2005, followed by Central Asian countries (29 per cent) and landlocked developing countries (25 per cent). The high percentage for the small island developing States is in large part due to very high FDI inflows into the Marshall Islands in 2004 and 2005, a country which, until August 2007, was on the OECD list of uncooperative tax heavens.

Among the largest recipients of FDI in relation to GFCF over the period 2001 to 2005 was Brunei Darussalam with an average of 104.7 per cent,

followed by Tuvalu (64.8), Hong Kong, China (63), Kiribati (62.4), Azerbaijan (57), Singapore (56) and Tajikistan (50).

A similar pattern is visible when studying inward FDI stock as a percentage of GDP. In 2006, this list was led by Hong Kong, China (405.7 per cent), followed by Kiribati (244.4), Singapore (159.0), Vanuatu (130.2), Palau (92.5), Tuvalu (90.5), Brunei Darussalam (86.2) and Azerbaijan (66.9).

Overall, this shows that, although China is by far the largest recipient of FDI in the region in absolute terms, the picture looks quite different when inflows and stocks are compared with the size of the economies and their overall investment levels. In this comparison, major trading and financial centres, small island developing States and resource-rich economies end up high on the list of FDI recipients. However, it must be borne in mind that a high percentage of FDI in relation to GFCF can also point to a low level of generation of domestic capital for investment. In addition, it must be noted that, in some instances, FDI from and in developing host economies (China and Hong Kong, China, for example) is due to round-tripping.[1] In the case of inward FDI in China, estimates vary from 25 per cent (UNCTAD, 2003) to 50 per cent (Xiao, 2004).

These figures show that FDI can and does make a substantial contribution to the financing of investments, in particular for small island developing States and resource-rich countries. Apart from providing much-needed foreign capital, FDI can also lead to increased knowledge and technology transfer, employment and tax incomes. However, different types of FDI may provide this to varying degrees. For example, employment creation is normally larger in the manufacturing sector, in particular in developing countries, while it is the smallest in the primary sector, including the mining and oil industry (UNCTAD, 2007, p. 11). Furthermore, greenfield investments would generally be expected to provide a larger increase in employment and value added than mergers and acquisitions, at least in the short run, as they provide additions to production capacity rather than a shift in production control and management (UNCTAD, 2007 p. 9). Thus, in addition to studying the quantity of FDI, it is important to study the quality of FDI, including its spread among sectors, and the contribution of FDI to employment in a country. To date, the availability of such data is limited, not only in Asia and the Pacific but worldwide.

Asia and the Pacific is increasingly becoming not only a destination for, but also a source of, FDI. In the UNCTAD list of the world's top 100 non-financial transnational corporations (TNCs) in 2005, nine were from Japan, and six out of the total of seven developing-country TNCs were from Asia and the Pacific (Republic of Korea (2); Hong Kong, China (2); Malaysia and Singapore). In the UNCTAD list of the top 100 non-financial TNCs from developing countries in 2005, Asia and the Pacific hosts 78 of the companies, with the majority coming from Hong Kong, China (25); Taiwan Province of China (18), Singapore (11) and China (10) (UNCTAD, 2007, annex).

Official development assistance

Official development assistance (ODA) is another major source of financing for developing economies. The responsibility of the developed world to provide funding for purposes of economic development in developing countries has recently been reaffirmed in the Monterrey Consensus, which urges developed countries to raise their ODA disbursement to meet the target of 0.7 per cent relative to their GDP.

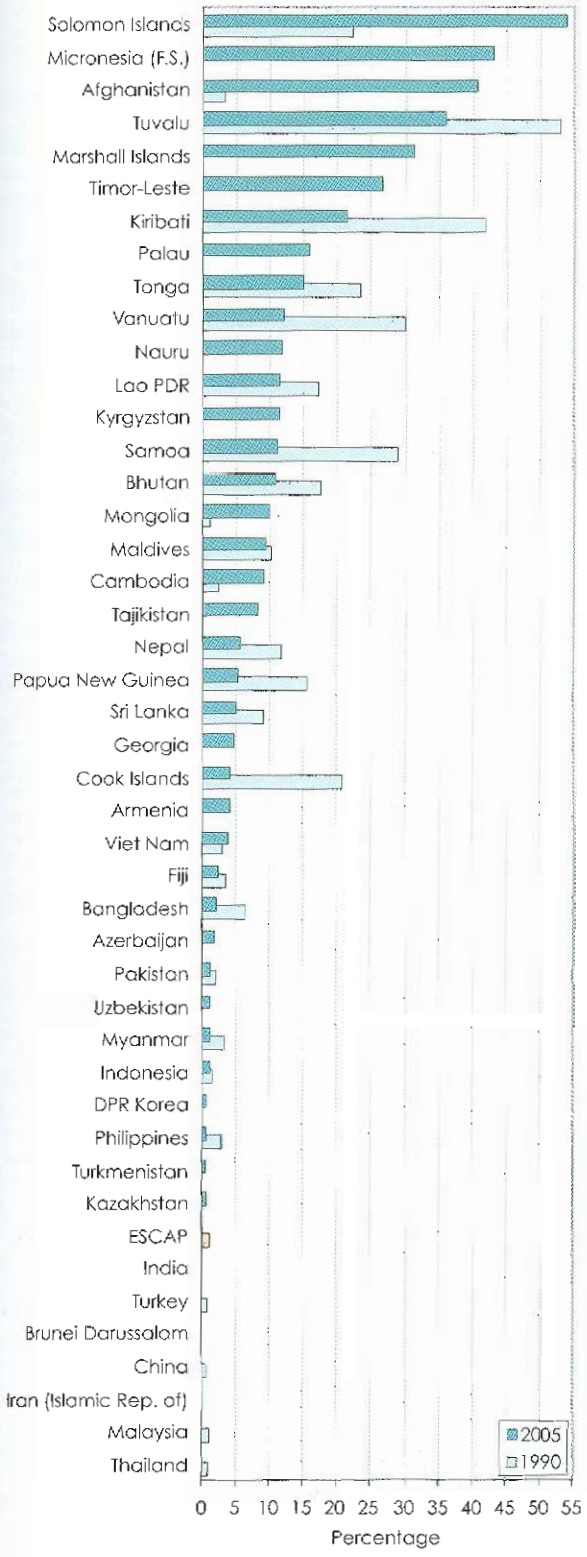
The developing economies of Asia and the Pacific received 0.4 per cent, on average, in 2005, which is considerably less than the economies in the African region — the primary receivers of ODA worldwide — with 3.6 per cent, on average. Latin America and the Caribbean received approximately the same amounts in relation to gross national income (GNI), with 0.2 per cent. The levels for these regions have remained more or less the same since 2000.

At the subregional level, vulnerable groups, such as small island developing States (9.8 per cent), least developed countries (5.8 per cent) and landlocked developing countries (4.5 per cent) received the bulk of ODA received in the Asian and Pacific region in 2005. Again, the levels throughout Asia and the Pacific have remained more or less stable over the past decade, with the exception of the least developed countries, whose level increased from 4 per cent in 2000 to 5.8 per cent in 2005, and the small island developing States, which have experienced a downward trend in recent years, from a temporarily high 12.2 per cent in 2000 to 9.8 per cent in 2005.

[1] Round-tripping refers to the "channelling by direct investors of local funds to special purpose entities abroad and the subsequent return of the funds to the local economy in the form of direct investment".

Figure 19.3 shows ODA in relation to GNI for 1990 and 2005 at the country level. In 2005, conflict-torn Afghanistan and Timor-Leste received particularly high levels of ODA, accounting for 40.6 and 26.7 per cent of GNI, respectively. Other primary ODA recipients were small island developing States, such as the Solomon Islands (53.8), Micronesia (43.0) and Tuvalu (36.1).

Figure 19.3 Proportion of ODA received in relation to GNI in Asia and the Pacific, 1990 and 2005



Debt service (percentage of exports of goods, services and income from abroad): The sum of interest payments and repayment of principal on international debt, divided by the value of exports of goods and services and income from abroad. *Aggregates:* Averages are calculated using the value of exports of goods, services and net income from abroad as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

FDI stock (million United States dollars): The value of the share of their capital and reserves (including retained profits) attributable to the parent enterprise, plus the net indebtedness of affiliates to the parent enterprises. *Aggregates:* Sum of individual country values. *Source:* United Nations Conference on Trade and Development, Foreign Direct Investment (online database, accessed in September 2007).

FDI stock (percentage of GDP): The value of fixed capital and reserves in the economy attributable to a parent enterprise resident in a different economy, or the sum of all accumulated FDI net inward flows. *Aggregates:* Averages are calculated using total GDP in United States dollars as weight. *Source:* Calculated by ESCAP using data from United Nations Conference on Trade and Development, Foreign Direct Investment (online database, accessed in September 2007) and National Accounts Main Aggregates Database (online database, accessed in September 2007).

FDI net inflows (percentage of gross fixed capital formation): Net inflows of foreign direct investment in the reporting period, or the gross inflow of FDI to the reporting economy from foreign investors minus the gross return of FDI to foreign investors. Ownership or control of less than 10 per cent of a business is not considered to be direct investment. The net inflows include net capital contributions to new and existing FDI affiliates, net earnings reinvested in FDI affiliates, and net loans to FDI affiliates. Gross fixed capital formation: The total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain additions to the value of non-produced assets realized by the productive activity of institutional units. Fixed assets are tangible or intangible assets produced as outputs from processes of production that are themselves used repeatedly or continuously in other processes of production for more than one year. *Aggregates:* Averages are calculated using total gross fixed capital formation as weight. *Source:* Calculated by ESCAP using data from United Nations Conference on Trade and Development, Foreign Direct Investment (online database, accessed in September 2007), and National Accounts Main Aggregates Database (online database, accessed in September 2007).

Workers' remittances (million United States dollars): Current transfers from abroad by migrants who are employed or intend to remain employed for more than a year in another economy in which they are considered residents. *Source:* International Monetary Fund, *Balance of Payment Statistics* (CD-ROM July 2007).

Workers' remittances (percentage of GNI): Current transfers from abroad by migrants who are employed or intend to remain employed for more than a year in another economy in which they are considered residents, expressed as a percentage of gross national income (GNI). GNI is GDP less net taxes on production and imports, compensation of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world. *Source:* Calculated by ESCAP using data from International Monetary Fund, *Balance of Payment Statistics* (CD-ROM July 2007) and National Accounts Main Aggregates Database (online database, accessed in September 2007).

ODA received (million United States dollars): The amount of official development assistance (ODA) received in grants and loans during the reporting period. *Aggregates:* Sum of individual country values. *Source:* Organization for Economic Co-operation and Development, Development Database on Aid from DAC Members (online database, accessed in September 2007).

ODA received (percentage of GNI): The amount of official development assistance (ODA) received in grants and loans during the reporting period, expressed as a percentage of the gross national income (GNI). GNI is GDP less net taxes on production and imports, less compensation of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world. *Aggregates:* Averages are calculated using total GNI as weight. *Source:* Calculated by ESCAP using data from Organization for Economic Co-operation and Development, Development Database on Aid from DAC Members (online database, accessed in September 2007) and National Accounts Main Aggregates database (online database, accessed in September 2007).

Net external debt (million United States dollars): The outstanding net amount of those current, and not contingent, liabilities owed to non-residents by residents of an economy that require payments either of principal and/or interest by the debtor at some point in the future. *Aggregates:* Sum of individual country values. *Source:* World Bank, *World Development Indicators* (online database, accessed in September 2007).

Net external debt (% of GDP): The outstanding net amount of those current, and not contingent, liabilities owed to non-residents by residents of an economy that require payments either of principal and/or interest by the debtor at some point in the future, expressed as a percentage of GDP. *Aggregates:* Averages are calculated using GDP in United States dollars as weight. *Source:* Calculated by ESCAP using data from World Bank, *World Development Indicators* (online database, accessed in September 2007).

19.1 Debt service

	Debt service % of exports of goods, services and income from abroad							
	1990	1995	2000	2001	2002	2003	2004	2005
East and North-East Asia								
China	10.6	9.0	5.1	4.2	3.5	2.7	1.2	1.0
DPR Korea								
Hong Kong, China								
Macao, China								
Mongolia		10.1	6.0	6.9	7.2	33.7	2.8	
Republic of Korea								
South-East Asia								
Brunei Darussalam								
Cambodia		0.7	1.4	0.8	0.8	0.9	0.8	0.7
Indonesia	25.6	17.5	11.1	13.7	13.6	12.7	13.7	8.5
Lao PDR	8.5	6.1	7.8	9.0				
Malaysia	10.6	2.9	2.8	3.6	5.0	4.7	3.6	3.6
Myanmar	18.2	18.8	3.4	2.6	3.6	3.6	3.3	
Philippines	25.6	14.3	10.2	14.7	14.5	14.9	15.7	12.4
Singapore								
Thailand	11.4	3.7	5.8	8.2	10.6	8.0	4.2	2.4
Timor-Leste								
Viet Nam			7.2	6.6	5.9	3.3	2.4	2.3
South and South-West Asia								
Afghanistan								
Bangladesh	34.8	16.4	10.7	9.5	10.2	8.1	6.9	7.2
Bhutan								
India	29.3	31.6	15.7	12.7	16.2	19.4		
Iran (Islamic Rep. of)	1.3	27.1	9.1					
Maldives	4.0	3.3	4.0	4.3	4.2	3.5	4.5	6.7
Nepal	15.2	7.7	7.3	7.6	10.2	10.0	8.9	8.1
Pakistan	22.9	24.5	20.7	21.1	19.6	17.1	22.7	9.9
Sri Lanka	14.8	8.8	10.8	9.8	9.6	7.7	8.9	4.2
Turkey	29.9	24.0	18.7	25.0	30.5	20.7	19.3	20.1
North and Central Asia								
Armenia		3.2	7.9	8.1	8.2	8.7	7.4	3.5
Azerbaijan		1.2	5.2	4.7	4.8	5.1	3.2	1.5
Georgia			13.4	7.6	8.8	10.0	11.5	6.5
Kazakhstan		3.5	8.6	4.8	7.4	3.1	3.8	4.0
Kyrgyzstan		13.2	9.0	11.9	10.9	8.1	6.2	6.3
Russian Federation		6.3	7.4	11.9	8.3	8.3	6.0	11.1
Tajikistan					9.0	5.4	5.6	5.6
Turkmenistan								
Uzbekistan								
Pacific								
American Samoa								
Cook Islands								
Fiji	9.0	3.6						
French Polynesia								
Guam								
Kiribati								
Marshall Islands								
Micronesia (F.S.)								
Nauru								
New Caledonia								
Niue								
Northern Mariana Is.								
Palau								
Papua New Guinea	18.4	10.1	8.1	7.1	7.9	7.3	8.6	5.9
Samoa	10.6	6.6					5.8	4.7
Solomon Islands	11.3	1.3						
Tonga	3.5			7.3	5.8			
Tuvalu								
Vanuatu	1.6	1.1	0.9	0.9	1.2	1.2	1.5	1.0
ESCAP Developed Economies								
Australia								
Japan								
New Zealand								
ESCAP developing countries	16.48	10.95	7.80	8.80	8.83	7.61	5.06	4.91
LLDCs								
LDCs		10.94	8.23	7.46	7.81	6.37	5.48	
SIDSs								
ASEAN		7.74	6.49	8.45	9.38	8.27	6.95	5.01
SAARC	27.24	26.95	15.34	13.12	15.66	17.68		
CIS Asia					7.31	4.28	4.49	3.82
Low-income	27.67	26.72	13.80	11.87	13.95	15.51		
Middle-income		9.34	7.01	8.36	8.10	6.53	4.91	4.91
High-income								
Africa	28.30	14.06	11.05	11.36	9.64	9.03	6.59	7.90
Latin America & Carib.	20.42	18.72	21.32	17.54	17.84	20.33	14.57	14.77
North America								
Europe								
Other Asia-Pacific								
World								

19.2 Foreign direct investment (FDI)

	FDI stock					FDI net inflows			
	Million US dollars	% of GDP				% of gross fixed capital formation			
	2006	90-95	96-00	01-05	2006	90-95	96-00	01-05	2006
East and North-East Asia									
China	292 559	9.7	16.0	13.5	11.0	11.2	12.4	8.5	6.1
DPR Korea	1 565	6.4	9.4	10.7	12.9				
Hong Kong, China	769 029	50.5	169.7	253.9	405.7	15.6	50.4	61.7	103.9
Macao, China	5 903	55.5	44.5	44.1	41.3	-0.1	0.0	38.0	15.4
Mongolia	876	1.6	10.6	30.9	31.2	3.1	10.0	17.3	15.3
Republic of Korea	70 974	2.0	4.7	8.5	8.1	0.6	3.6	3.1	1.9
South-East Asia									
Brunei Darussalam	9 861	3.6	52.1	105.1	85.9	12.3	48.8	107.3	28.5
Cambodia	2 954	5.6	35.4	42.7	45.9	25.8	43.0	20.1	41.6
Indonesia	19 056	8.1	15.8	5.5	5.2	5.1	2.0	2.9	6.4
Lao PDR	856	5.9	28.6	28.1	24.8	23.5	38.1	3.8	17.7
Malaysia	53 575	29.2	50.9	38.0	36.0	18.8	16.5	12.6	20.1
Myanmar	5 005	11.4	41.1	44.9	36.8	23.8	54.5	20.5	7.0
Philippines	17 120	8.0	12.9	15.1	14.6	8.2	9.7	7.0	13.8
Singapore	210 089	77.1	101.3	155.3	159.0	32.2	39.7	56.7	79.5
Thailand	68 058	10.7	17.3	32.1	33.0	4.1	11.4	15.6	16.5
Timor-Leste	167	18.1	21.2	46.4	47.1	38.2		23.9	4.2
Viet Nam	33 451	29.8	56.1	66.5	57.7	36.3	24.0	11.4	12.3
South and South-West Asia									
Afghanistan	27	0.4	0.4	0.4	0.3	0.0	0.3	0.2	0.1
Bangladesh	4 133	2.1	3.6	5.0	6.1	0.3	4.4	3.2	3.6
Bhutan	28	1.0	1.0	1.7	3.0	0.7	0.3	0.9	1.2
India	50 680	0.9	3.0	5.2	5.6	0.9	2.9	3.6	6.3
Iran (Islamic Rep. of)	4 543	2.1	2.2	2.0	1.9	-0.1	0.1	0.6	1.4
Maldives	194	13.9	17.3	22.4	21.4	7.2	6.9	4.7	2.8
Nepal	120	0.4	1.2	1.9	1.5	0.7	1.2	0.5	-0.4
Pakistan	14 753	4.5	9.8	7.8	10.0	3.2	3.9	6.3	15.4
Sri Lanka	2 927	9.3	11.5	10.2	10.7	4.4	5.5	5.3	7.0
Turkey	79 075	8.4	9.1	14.2	20.2	2.0	1.8	8.7	25.3
North and Central Asia									
Armenia	1 705	2.3	18.4	30.2	26.6	2.7	34.1	20.4	16.4
Azerbaijan	13 275	10.7	62.9	107.0	66.9	7.9	45.8	56.6	-9.6
Georgia	3 367	0.9	13.4	33.0	43.5	1.7	21.4	26.6	51.8
Kazakhstan	32 476	9.1	33.8	52.8	42.0	12.2	38.3	30.3	28.7
Kyrgyzstan	593	5.1	21.8	24.8	21.0	23.5	21.9	18.3	38.3
Russian Federation	197 682	0.3	5.6	21.0	20.1	1.3	6.0	9.6	16.3
Tajikistan	645	1.5	9.3	13.1	22.9	4.0	13.3	50.0	139.1
Turkmenistan	3 124	9.3	22.7	34.4	48.1	19.8	8.4	22.4	47.0
Uzbekistan	1 356	0.6	3.2	8.8	8.4	0.7	2.6	3.9	4.6
Pacific									
American Samoa									
Cook Islands	35	18.9	66.2	25.5	19.7	8.6	41.6	0.9	-0.1
Fiji	430	25.1	26.1	12.5	13.8	24.4	9.0	8.3	17.0
French Polynesia	203	3.0	3.6	3.8	3.6	1.7	1.5	2.3	0.0
Guam									
Kiribati	147	2.2	67.8	187.0	195.8	0.8	74.9	50.0	37.0
Marshall Islands						-2.6	72.7	247.0	26.9
Micronesia (F.S.)							-32.8	-0.1	
Nauru						-0.7	1.5	5.6	5.1
New Caledonia	406	2.8	3.2	6.4	8.6	1.3	0.9	4.1	7.2
Niue	7								
Northern Mariana Is.	767								
Palau	120		57.7	89.2	76.8	3.5	60.6	14.2	3.5
Papua New Guinea	2 280	36.6	41.9	49.9	37.2	27.3	36.7	6.1	2.6
Samoa	52	13.4	20.9	17.0	11.9	13.4	15.3	0.1	-3.9
Solomon Islands	178	37.7	40.5	44.5	42.9	22.1	7.1	3.0	23.9
Tonga	51	2.9	6.3	13.5	21.7	5.0	4.0	17.8	35.2
Tuvalu	25	2.1	1.0	106.6	97.9	3.7	-2.7	48.8	0.1
Vanuatu	504	90.0	130.7	146.0	139.6	44.9	48.4	26.7	83.6
ESCAP Developed Economies									
Australia	246 173	25.2	27.1	33.4	31.6	8.6	7.7	4.9	11.5
Japan	107 633	0.4	0.8	1.9	2.4	0.1	0.5	0.6	-0.6
New Zealand	63 116	33.2	52.3	49.8	59.6	24.4	18.0	9.3	32.0
ESCAP	2 393 926	5.1	11.4	15.6	18.3	2.8	5.6	6.0	7.5
LLDC	55 081		20.9	40.5	35.5		18.1	26.2	18.7
LDC	14 391	3.9	10.4	12.8	12.9	4.3	9.7	4.9	6.0
SIDS	215 654	66.8	90.5	136.1	139.2	30.2	37.7	51.0	69.9
ASEAN	420 025	20.0	35.6	42.4	39.6	11.4	16.2	17.3	20.7
SAARC	72 862	1.8	4.2	5.6	6.3	1.3	3.2	3.8	6.9
Central Asia	56 542		23.6	47.0	40.5		20.4	30.5	22.4
Low-income	119 640	2.9	7.3	9.5	9.5	33.2	48.5	46.0	7.5
Middle-income	790 832		14.9	16.0	15.0		10.0	8.8	8.9
High-income	1 483 387	4.5	10.4	16.3	22.6	1.5	3.9	4.2	6.0
Africa	317 062	14.1	21.1	28.8	29.4	5.2	9.7	15.6	16.8
Latin America & Carib.	908 575	10.0	18.0	32.6	30.4	6.8	20.4	17.7	14.7
North America	2 272 259	8.3	11.2	15.0	15.7	4.0	12.6	5.7	9.0
Europe	5 828 092	11.3	16.7	31.7	37.8	5.3	19.2	14.8	18.6
Other Asia-Pacific	267 035	9.3	10.1	15.2	19.0	2.7	5.2	10.7	22.7
World	11 998 838	8.6	14.0	21.7	24.7	4.0	12.4	9.4	12.2

19.3 Workers' remittances

	Workers' remittances							
	Million US dollars				% of GNI			
	1995	2000	2004	2005	1995	2000	2004	2005
East and North-East Asia								
China	350.0	556.2	4 626.9	5 494.7	0.0	0.0	0.2	0.2
DPR Korea								
Hong Kong, China								
Macao, China			72.0				0.7	
Mongolia		12.0	195.4			1.3	11.1	
Republic of Korea	291.4	62.9	30.3	67.6	0.1	0.0	0.0	0.0
South-East Asia								
Brunei Darussalam								
Cambodia	10.0	100.0	144.0	160.0	0.3	2.8	2.9	2.7
Indonesia	651.0	1 190.2	1 700.0	1 760.0	0.3	0.9	0.8	0.7
Lao PDR								
Malaysia								
Myanmar	81.4	76.7	81.3		1.0	1.1	0.8	
Philippines	432.0	5 161.0	8 617.0	10 668.0	0.6	6.5	9.2	10.0
Singapore								
Thailand								
Timor-Leste								
Viet Nam								
South and South-West Asia								
Afghanistan								
Bangladesh	1 201.7	1 958.1	3 572.2	4 241.5	2.8	3.9	5.5	6.2
Bhutan								
India	6 139.0	12 744.9			1.7	2.7		
Iran (Islamic Rep. of)								
Maldives								
Nepal	56.8	111.5	792.6	1 126.3	1.3	2.0	11.5	14.8
Pakistan	1 712.2	1 075.0	3 943.0	4 277.0	2.1	1.4	3.4	3.2
Sri Lanka	789.8	1 142.3	1 563.9	1 968.5	6.0	7.0	7.8	8.3
Turkey	3 327.0	4 560.0	804.0	851.0	1.9	2.3	0.3	0.2
North and Central Asia								
Armenia	12.4	9.3	31.1	47.2	1.0	0.5	0.9	1.0
Azerbaijan		57.1	191.3	490.2		1.1	2.3	3.9
Georgia		94.9	64.0	93.8		3.0	1.2	1.4
Kazakhstan		63.9	53.5	55.8		0.4	0.1	0.1
Kyrgyzstan	1.2	2.2	179.1	313.3	0.1	0.2	8.5	13.2
Russian Federation			1 098.3	820.3			0.2	0.1
Tajikistan			252.0	465.2			9.4	15.7
Turkmenistan								
Uzbekistan								
Pacific								
American Samoa								
Cook Islands								
Fiji								
French Polynesia			15.0	11.3			0.3	0.2
Guam								
Kiribati								
Marshall Islands								
Micronesia (F.S.)								
Nauru								
New Caledonia			8.1	5.3			0.2	0.1
Niue								
Northern Mariana Is.								
Palau								
Papua New Guinea			7.9	5.7			0.2	0.1
Samoa	39.2				20.3			
Solomon Islands								
Tonga								
Tuvalu								
Vanuatu	6.1	11.0	0.1	0.1	2.8	4.5	0.0	0.0
ESCAP Developed Economies								
Australia								
Japan		504.8	600.2	733.4		0.0	0.0	0.0
New Zealand	206.4	215.3	322.3		0.4	0.4	0.4	
ESCAP								
LLDC								
LDC								
SIDS								
ASEAN								
SAARC								
Central Asia								
Low-income								
Middle-income								
High-income								
Africa								
Latin America & Carib.								
North America								
Europe								
Other Asia-Pacific								
World								

19.4 Official development assistance (ODA)

	ODA received							
	Million US dollars				% of GNI			
	1990	1995	2000	2005	1990	1995	2000	2005
East and North-East Asia								
China	2 030	3 471	1 728	1 757	0.5	0.5	0.1	0.1
DPR Korea	8	13	73	81	0.0	0.3	0.7	0.7
Hong Kong, China								
Macao, China								
Mongolia	13	209	217	212	1.2	17.1	23.1	9.9
Republic of Korea								
South-East Asia								
Brunei Darussalam	4	4			0.1	0.1		
Cambodia	41	551	396	538	2.4	16.9	11.2	9.0
Indonesia	1 716	1 301	1 654	2 524	1.6	0.7	1.2	1.1
Lao PDR	149	307	282	296	17.2	17.3	17.0	11.4
Malaysia	468	108	45	32	1.1	0.1	0.1	0.0
Myanmar	161	150	106	145	3.1	1.9	1.5	1.2
Philippines	1 271	902	575	562	2.9	1.2	0.7	0.5
Singapore	-3	17						
Thailand	796	837	698	-171	0.9	0.5	0.6	-0.1
Timor-Leste	0	0	231	185	0.1	0.0	72.1	26.7
Viet Nam	181	835	1 681	1 905	3.0	4.0	5.5	3.7
South and South-West Asia								
Afghanistan	122	213	136	2 775	3.4	6.6	4.6	40.6
Bangladesh	2 093	1 282	1 168	1 321	6.5	3.0	2.3	1.9
Bhutan	46	71	53	90	17.6	27.7	11.9	10.9
India	1 399	1 729	1 463	1 724	0.4	0.5	0.3	0.2
Iran (Islamic Rep. of)	105	187	130	104	0.1	0.2	0.1	0.1
Maldives	21	58	19	67	10.2	15.2	3.2	9.4
Nepal	423	429	387	428	11.8	9.9	7.0	5.6
Pakistan	1 127	821	692	1 666	1.9	1.0	0.9	1.3
Sri Lanka	728	554	276	1 189	9.1	4.2	1.7	5.0
Turkey	1 202	313	327	464	0.8	0.2	0.2	0.1
North and Central Asia								
Armenia		218	216	193		16.9	11.4	4.1
Azerbaijan		119	139	223		3.9	2.7	1.8
Georgia		209	169	310		7.8	5.3	4.6
Kazakhstan		65	189	229		0.3	1.1	0.4
Kyrgyzstan		285	215	268		19.3	16.7	11.3
Russian Federation								
Tajikistan		65	124	241		4.3	11.7	8.2
Turkmenistan		28	31	28		1.3	0.8	0.5
Uzbekistan		84	186	172		0.6	1.4	1.3
Pacific								
American Samoa								
Cook Islands	12	13	4	8	20.7	14.0	5.3	4.2
Fiji	50	44	29	64	3.7	2.3	1.8	2.2
French Polynesia								
Guam								
Kiribati	20	15	18	28	41.9	19.3	19.3	21.5
Marshall Islands		39	57	57		32.1	38.7	31.4
Micronesia (F.S.)		77	102	106		33.7	43.0	43.0
Nauru	0	3	4	9	0.2	4.7	8.5	11.8
New Caledonia								
Niue	7	8	3	21				
Northern Mariana Is.	63	-1						
Palau		142	39	23		145.1	31.9	15.8
Papua New Guinea	412	370	275	266	15.5	8.7	7.9	5.2
Samoa	48	43	27	44	28.9	22.3	11.9	11.2
Solomon Islands	46	48	68	198	22.3	13.3	20.2	53.8
Tonga	30	39	19	32	23.4	24.6	12.7	15.0
Tuvalu	5	8	4	9	53.1	66.7	32.9	36.1
Vanuatu	50	46	46	39	30.2	20.9	19.0	12.0
ESCAP Developed Economies								
Australia								
Japan								
New Zealand								
ESCAP								
LLDC		2 090	2 175	5 157		3.9	3.9	4.5
LDC	3 223	3 219	2 941	6 162	6.6	5.0	4.0	5.8
SIDS								
ASEAN	4 783	5 012	5 438	5 829	1.4	0.8	1.2	0.8
SAARC	5 958	5 155	4 194	9 260	1.4	1.0	0.7	0.9
Central Asia		1 071	1 269	1 666		2.3	2.7	1.7
Low-income	6 174	7 389	7 700	12 422	1.4	1.3	1.1	1.1
Middle-income		8 884	6 587	7 994		0.6	0.3	0.2
High-income								
Africa	24 174	20 795	14 457	33 259	6.6	4.0	2.7	3.6
Latin America & Carib.	4 680	5 806	3 714	5 400	0.4	0.3	0.2	0.2
North America								
Europe								
Other Asia-Pacific	3 959	2 576			0.8	0.4		
World								

19.5 Net external debt

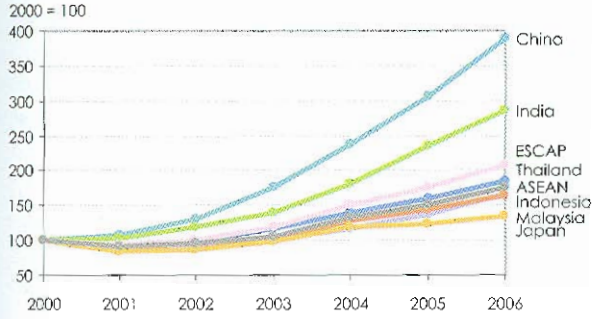
	Net external debt							
	Million US dollars				% of GDP			
	1990	1995	2000	2005	1990	1995	2000	2005
East and North-East Asia								
China	55 301	118 090	145 729	281 612	14	16	12	12
DPR Korea								
Hong Kong, China								
Macao, China								
Mongolia		531	896	1 327		43	95	64
Republic of Korea								
South-East Asia								
Brunei Darussalam								
Cambodia	1 845	2 284	2 628	3 515	109	69	72	57
Indonesia	69 872	124 398	144 159	138 300	56	56	87	49
Lao PDR	1 768	2 165	2 502	2 690	204	122	144	94
Malaysia	15 328	34 343	41 874	50 981	35	39	46	39
Myanmar	4 695	5 771	5 928	6 645	91	74	81	56
Philippines	30 580	39 379	58 304	61 527	69	53	78	63
Singapore								
Thailand	28 094	100 039	79 710	52 266	33	60	65	30
Timor-Leste								
Viet Nam	23 270	25 428	12 825	19 287	360	123	41	37
South and South-West Asia								
Afghanistan								
Bangladesh	12 439	15 927	15 717	18 935	39	39	32	29
Bhutan	84	106	204	649	30	36	46	78
India	83 628	94 464	99 099	123 123	26	25	21	15
Iran (Islamic Rep. of)					10	20	8	11
Maldives	78	155	206	368	36	39	33	49
Nepal	1 640	2 418	2 846	3 285	47	57	53	44
Pakistan	20 663	30 229	32 781	33 675	36	37	42	26
Sri Lanka	5 863	8 395	9 157	11 444	71	63	55	48
Turkey	49 424	73 781	117 108	171 059	33	44	59	47
North and Central Asia								
Armenia		371	916	1 861		29	48	38
Azerbaijan		321	1 352	1 881		10	26	14
Georgia		1 240	1 638	1 911		46	54	30
Kazakhstan		3 750	12 433	43 354		18	68	76
Kyrgyzstan		609	1 827	2 032		41	133	83
Russian Federation		121 401	160 023	229 042		30	62	30
Tajikistan		634	1 034	1 022		51	120	44
Turkmenistan		402	2 549	1 092		18	61	19
Uzbekistan		1 799	4 634	4 226		13	34	31
Pacific								
American Samoa								
Cook Islands								
Fiji	402	245	133	231	30	12	8	8
French Polynesia								
Guam								
Kiribati								
Marshall Islands								
Micronesia (F.S.)								
Nauru								
New Caledonia								
Niue								
Northern Mariana Is.								
Palau								
Papua New Guinea	2 594	2 506	2 592	1 849	79	52	67	33
Samoa	92	170	197	656	82	85	86	157
Solomon Islands	120	159	155	170	58	44	46	46
Tonga	54	64	66	84	43	41	44	39
Tuvalu								
Vanuatu	38	49	74	82	25	20	30	24
ESCAP Developed Economies								
Australia								
Japan								
New Zealand								
ESCAP developing countries	407 873	811 619	961 299	1 270 181	30	32	33	23
LLDC		13 105	31 194	63 419		26	58	56
LDC	22 799	29 202	30 458	36 996	52	49	44	39
SIDS								
ASEAN	175 452	333 805	347 930	335 212	56	57	70	44
SAARC	124 396	151 693	160 011	191 479	29	30	26	18
Central Asia		9 127	26 383	57 378		20	54	54
Low-income		184 921	185 466	221 781	35	33	28	20
Middle-income		626 698	775 832	1 048 400		32	35	24
High-income								
Africa	270 631	336 695	297 952	300 892	72	66	52	32
Latin America & Carib.	444 637	611 790	762 473	727 627	41	36	39	30
North America								
Europe								
Other Asia-Pacific								
World								

20. International trade

World trade has continued to grow more rapidly than world output. On an average annual basis, world merchandise exports grew by 10 per cent during the period 2000 to 2005. In 2006, world merchandise exports grew further, by almost 15 per cent. The growth in world trade is sustained largely by the emerging economies in Asia, in particular China, and, to some extent, India.

Merchandise exports in the Asian and Pacific region grew, on average, by 12 per cent annually during the period 2000 to 2005 and by 17.5 per cent in 2006 (table 20.3). Africa posted a higher growth rate for the period 2000 to 2005, but Asia and the Pacific outpaced it in 2006. This was not the case with Latin America and the Caribbean, which recorded an impressive 20 per cent growth in merchandise exports in 2006, after maintaining a relatively lacklustre average of 9.4 per cent during 2000 to 2005.

Figure 20.1 Index of merchandise exports in selected Asian and Pacific countries/areas and country/area groupings, 2000-2006

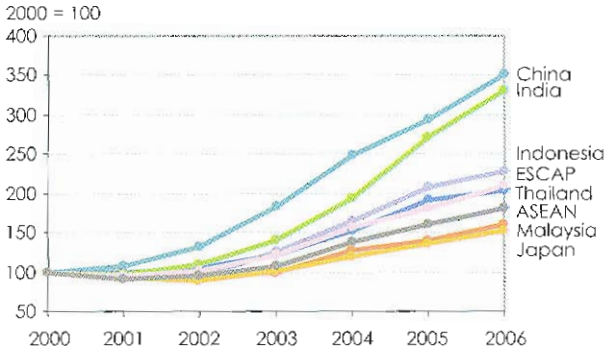


China and Japan are the leading exporters in Asia and the Pacific. China posted a high average annual growth rate in merchandise exports of 25 per cent during the period 2000 to 2005 and 27.2 per cent in 2006, which gained it a place among the largest exporters in the world. The total merchandise exports of China in 2006 approached US$ 970 billion, seven times higher than India. Japan took second place among Asian and Pacific countries that year, with US$ 644 billion. During the period 2000 to 2005 and in 2006, the merchandise exports of India grew at 18.6 and 21.5 per cent, respectively.

Some Central Asian countries also registered high growth rates in merchandise exports. While high growth in countries such as Azerbaijan and Kazakhstan is based on high oil and gas prices, the high growth rates in Armenia and Georgia of over 26 and 22 per cent, respectively, during the period 2000 to 2005 are more surprising. These may be due to high commodity prices and, hence, more favourable terms of trade, even though these growth rates were sharply lower in 2006. Tajikistan, in contrast, boasted an unprecedented merchandise export growth rate of almost 54 per cent in 2006, after a lacklustre average annual growth rate of 3 per cent during the period 2000 to 2005.

Asia and the Pacific ranked second — behind Africa — with respect to the average annual growth rate of merchandise imports during the period 2000 to 2005, with 13 per cent. Among ESCAP subregions, Central Asia posted the highest average import growth rate, 21 per cent, during the same period, with Kyrgyzstan (55 per cent) leading the way. In South-East Asia, the growth rate of merchandise imports contracted sharply for Indonesia and Thailand in 2006. In contrast, imports grew markedly in 2006 for the Lao People's Democratic Republic, the Philippines and Singapore.

Figure 20.2 Index of merchandise imports in selected Asian and Pacific countries/areas and country/area groupings, 2000-2006

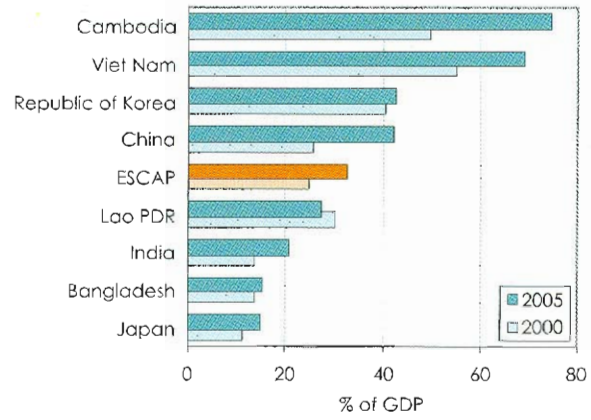


China and Japan are among the leading importers in the Asian and Pacific region. The merchandise imports of China, for example, amounted to almost US$ 792 billion in 2006. Japan followed with US$ 578 billion.

For China, the ratio of exports to GDP amounted to 42 per cent in 2005, but that of Hong Kong, China — traditionally the most open economy in the region — was whopping a 204 per cent, and that of Singapore even higher at 243 per cent. These towering figures are due to the large values of re-exports for these economies. Among the least developed countries, the ratio of exports to GDP has increased significantly in Cambodia, and to some extent also in Bangladesh.

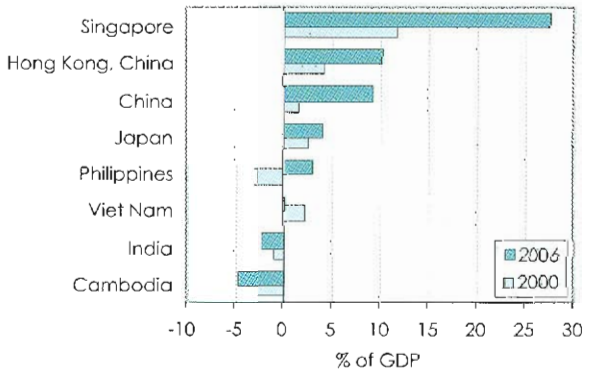
China recorded a positive current account balance of over 9 per cent of GDP in 2006, which contributed to its massive foreign reserves, while

Figure 20.3 Exports relative to GDP in selected Asian and Pacific countries, 2000 and 2005



India recorded a deficit of 2.2 per cent. Timor-Leste, Brunei Darussalam and Singapore had the highest current account surpluses at 116.3, 58.7 and 27.5 per cent of GDP, respectively, in 2006. Kyrgyzstan, on the other hand, had the highest current account deficit in 2006, which may be a reflection of the country's implementation of trade reforms and the relaxation of import restrictions (table 20.3).

Figure 20.4 Current account balance in selected Asian and Pacific countries/area, 2000 and 2006



The share of primary products (agriculture, mining and other natural resources, including oil, gas and coal) has steadily declined in most countries of Asia and the Pacific. These products only figure prominently in the export structure of energy-rich countries. According to UNCTAD data, among the non-energy rich countries, primary products continue to account for over 50 per cent of exports in such countries as Maldives and Tajikistan and various Pacific islands (table 20.4). In other countries, manufacturing products lead exports, though services are becoming increasingly important. World manufacturing exports grew at an annual average of 11 per cent during the period 2000 to 2005 and they made up 83 per cent of total world merchandise exports in 2005.

Intraregional trade

According to UNCTAD (2007), intraregional trade has grown steadily and more rapidly than extraregional trade. The reasons for this are harmonization of standards, policy coordination, conclusion of regional and bilateral trade agreements and business-driven regional production networks and supply chains. Intraregional merchandise trade (among ESCAP member countries) has increased steadily from 47 per cent in 2000 to 51 per cent in 2005. A number of countries have been able to reduce their dependence on traditional export markets, such as the United States, Japan and the European Union. Instead, many countries are looking for export opportunities in the emerging economic giants of China and India. The share of merchandise exports from ASEAN member countries to the United States in total ASEAN country exports, for instance, decreased by 20 per cent between 2000 and 2005, but the share of exports to China increased by 124 per cent during the same period.

There are currently 133 regional and bilateral trade agreements involving an ESCAP member State. While such agreements, in principle, contribute to the liberalization of trade, their net impact on trade creation is not always positive and many remain unratified and unimplemented. There are notable exceptions, such as the regional trade agreement (RTA) of the ASEAN Free Trade Area (AFTA). Intra-AFTA trade is, however, only about a quarter of the subregion's total trade. The China-ASEAN free trade agreement, expected to be fully implemented in 2010, will further boost intraregional trade in East Asia. Already, China is emerging as the locomotive for the region. ASEAN is also negotiating FTAs with India, Japan and the Republic of Korea.

Another emerging bloc is the Asia-Pacific Trade Agreement (APTA), which is the only RTA combining the leading economies of China, India and the Republic of Korea together with Sri Lanka and least developed countries such as Bangladesh and the Lao People's Democratic Republic. A fourth round of tariff negotiations, launched in late October 2007 by ministers of the APTA member countries, will further boost intra-APTA trade, which is currently small at just over 5 per cent. With growing awareness of the Third Round results, however, this percentage is likely to rise.

The region will continue to face challenges and opportunities in trade. They are increasingly likely to stem from the region itself, especially with the stalled multilateral trade negotiations under the Doha Round are stalling. Rapidly expanding regional and subregional production networks and supply chains offer great opportunities for further trade integration and cooperation. China's trade growth, for example, is likely to continue and will force many Asian countries, in particular those in South-East Asia, to speed up economic reforms

towards more subregional integration and industrial restructuring. On the other hand, as noted above, trade between China and ASEAN countries is already expanding rapidly. Sustained investment in human resources, infrastructure and export competitiveness will help Asian countries manage globalization to their advantage and maintain growth momentum for years to come. Less and least developed countries, including those that are landlocked and energy-poor, should deepen their integration into the Asian and Pacific region to benefit from its dynamism and growth. The proliferation of regional and bilateral trade agreements, however, also raises concerns about so-called "noodle bowl" risks growing out of control. There is a need, therefore, for all these agreements to be consolidated and integrated in some form in order to arrive at an effective and efficient Asian integration process.

Imports of goods and services (% of GDP): The value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude labour and property income (formerly called factor services) as well as transfer payments. *Aggregates:* Averages are calculated using GDP in US dollars as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from World Bank, *World Development Indicators* (online database, accessed in September 2007).

Exports of goods and services (% of GDP): The value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude labour and property income (formerly called factor services) as well as transfer payments. *Aggregates:* Averages are calculated using GDP in US dollars as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from World Bank, *World Development Indicators* (online database, accessed in September 2007).

Imports of merchandise (million US dollars): All goods which add to the material resources of a country as a result of their movement into or out of the country. Thus, ordinary commercial transactions, government trade (including foreign aid, war reparations and trade in military goods), postal trade and all kind of silver (except silver coins after their issue), are included in the statistics. Since their movement affects monetary rather than material resources, monetary gold, and currency and titles of ownership after their issue into circulation, are excluded. *Aggregates:* Sum of individual country values. *Source:* Calculated by ESCAP using data from United Nations Conference on Trade and Development, *Handbook of Statistics,* (online database, accessed in September 2007).

Exports of merchandise (million US dollars): All goods which subtract from the material resources of a country as a result of their movement into or out of the country. Thus, ordinary commercial transactions, government trade (including foreign aid, war reparations and trade in military goods), postal trade and all kind of silver (except silver coins after their issue), are included in the statistics. Since their movement affects monetary rather than material resources, monetary gold, and currency and titles of ownership after their issue into circulation, are excluded. *Aggregates:* Sum of individual country values. *Source:* Calculated by ESCAP using data from United Nations Conference on Trade and Development, *Handbook of Statistics,* (online database, accessed in September 2007).

Average annual growth rate of imports of merchandise (percentage): Average annual rate of change in imports of merchandise. *Aggregates:* Averages are calculated using GDP in US dollars as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from United Nations Conference on Trade and Development, *Handbook of Statistics,* (online database, accessed in September 2007).

Average annual growth rate of exports of merchandise (percentage): Average annual rate of change in exports of merchandise. *Aggregates:* Averages are calculated using GDP in US dollars as weight. Missing data have been imputed. *Source:* Calculated by ESCAP using data from United Nations Conference on Trade and Development, *Handbook of Statistics,* (online database, accessed in September 2007).

Current account balance (% of GDP): The net difference between credit and debit flows from goods, services and income. It also includes current transfers crossing national borders, but not transactions in financial assets and liabilities which are recorded in the capital account. *Source:* International Monetary Fund, *International Financial Statistics,* (CD-ROM June 2007).

Exports concentration index: The degree of export market concentration measured by the Herfindahl-Hirschmann index. A high value indicates that the country depends on few export markets. *Aggregates:* Averages are calculated using exports of goods and services as weight. *Source:* United Nations Conference on Trade and Development, *Handbook of Statistics,* (online database, accessed in September 2007).

Primary products exports share (% of products exports): The dependence of the country's exports of primary commodities, expressed as a share of total exports. *Aggregates:* Averages are calculated using exports of goods and services as weight. *Source:* United Nations Conference on Trade and Development, *Handbook of Statistics,* (online database, accessed in September 2007).

20.1 International trade

	Imports of goods and services, % of GDP					Exports of goods and services, % of GDP				
	1990	1995	2000	2004	2005	1990	1995	2000	2004	2005
East and North-East Asia										
China	12.2	19.3	23.2	35.3	35.9	17.7	24.0	25.9	38.1	42.2
DPR Korea										
Hong Kong, China			139.6	181.4	190.9	130.6	143.2	143.6	190.3	203.7
Macao, China				57.9		100.8	78.1	100.4		
Mongolia	87.4	42.5	81.5	87.1		37.3	48.0	64.9	75.1	76.6
Republic of Korea	29.0	30.0	37.7	39.7	39.9	28.0	28.8	40.8	44.0	42.5
South-East Asia										
Brunei Darussalam										
Cambodia		41.5	61.7	77.4	84.5	4.0	32.4	49.7	69.4	74.6
Indonesia	21.9	24.5	33.9	28.2	31.1	23.1	23.9	41.0	32.2	34.3
Lao PDR	24.5	42.1	33.4			11.8	23.0	30.2	24.7	27.2
Malaysia	72.2	97.8	104.5	99.9	99.9	74.5	94.1	124.4	121.2	123.0
Myanmar	11.6	26.0	34.3	24.4						
Philippines	31.5	45.0	64.7	58.4	54.9	27.5	36.4	55.7	53.6	48.0
Singapore	176.0	172.2	181.9	202.9	212.9				230.4	243.0
Thailand	42.0	49.0	58.4	66.3	75.6	34.1	41.8	66.8	70.5	73.6
Timor-Leste										
Viet Nam			55.6	73.3	72.5	36.0	32.8	55.0	66.7	69.1
South and South-West Asia										
Afghanistan									12.8	14.0
Bangladesh	12.4	18.4	19.9	21.1	22.6	5.8	10.0	13.5	14.2	15.5
Bhutan						28.3	38.9	29.4	29.0	25.1
India	9.1	13.2	15.7			7.0	10.7	13.7	18.6	20.7
Iran (Islamic Rep. of)	23.2	13.0	15.5			17.6	17.0	20.4	26.4	34.0
Maldives	74.0	78.3	72.3	96.3	109.9		92.7	89.5	94.8	61.8
Nepal	23.7	38.5	33.5	34.1	36.6	10.8	25.1	23.9	18.0	16.1
Pakistan	19.5	19.1	17.2	23.2	26.4	11.9	13.6	14.1	16.2	15.4
Sri Lanka	36.1	44.8	48.5	44.8	42.1	28.6	34.7	38.1	35.9	33.4
Turkey	16.9	23.7	30.5	33.5	33.6	13.3	19.9	24.0	29.0	27.4
North and Central Asia										
Armenia		56.4	50.5	42.6	40.8	36.6	27.3	23.4	27.6	27.1
Azerbaijan		41.9	38.4	72.7	55.8	59.6	34.9	39.0	48.8	57.4
Georgia			39.0	47.9	51.0	36.2	25.3	23.1	41.4	41.5
Kazakhstan		29.7	49.0	43.9	45.5		38.6	56.6	52.2	54.5
Kyrgyzstan		48.7	47.8	51.0	57.2	29.9	32.8	41.8	42.5	39.0
Russian Federation		20.7	23.5	22.2	21.5	16.5	29.0	44.1	34.4	35.0
Tajikistan				69.7	71.8	25.5	63.6	95.0	58.4	53.2
Turkmenistan							95.2	66.7	82.0	90.5
Uzbekistan						26.2	27.7	24.6	40.3	44.7
Pacific										
American Samoa										
Cook Islands										
Fiji	67.2	58.3				62.3	54.7	59.0		
French Polynesia				40.9	43.0		3.1	5.2		
Guam										
Kiribati	163.1					11.6	16.1	10.0	14.5	
Marshall Islands										
Micronesia (F.S.)										
Nauru										
New Caledonia				47.9	58.8	18.5	15.6			
Niue										
Northern Mariana Is.										
Palau							14.6	9.8	87.4	91.5
Papua New Guinea	45.9	39.3	45.8	49.8	50.5	39.8	59.3	63.7		
Samoa	47.2	57.6		52.6	59.0		34.6	33.9	26.1	
Solomon Islands	75.0	63.5				47.5	56.1	35.1	46.1	
Tonga	59.9	0.0	0.0			31.1	9.1	8.2	10.4	
Tuvalu										
Vanuatu	67.5	47.2	60.1	57.4	62.2	48.8	43.0			
ESCAP Developed Economies										
Australia	17.1	19.5	21.9	20.2	21.1	16.7	19.2	22.4	18.4	
Japan	9.9	8.1	9.9	11.8	13.3	10.6	9.2	11.0	13.4	
New Zealand	26.8	28.2	32.9	29.6	30.0	27.0	29.0	35.5	29.0	
ESCAP	18.6	18.7	22.8	27.2	28.8	19.1	19.7	24.7	30.3	32.9
LLDC							36.9	42.6	45.8	48.8
LDC	7.6	15.4	17.6	15.5	15.3	10.3	16.0	19.5	19.0	20.1
SIDS	148.5	152.2	165.4	179.5	189.1				198.8	210.0
ASEAN	53.6	62.3	78.3	76.7	80.0	78.1	61.3	83.7	85.6	87.8
SAARC	11.3	15.6	17.3			8.3	12.1	14.7	18.5	20.0
Central Asia				47.8	47.0		37.3	43.4	50.1	53.2
Low-income	14.3	17.5	19.3			9.4	13.5	16.9	21.2	22.9
Middle-income		27.7	31.8	35.6	35.7	21.5	29.7	36.8	40.6	42.9
High-income	19.3	16.0	19.9	23.8	26.2	19.3	17.1	21.1	25.9	
Africa	24.5	28.1	26.8	30.3	30.6	25.0	26.6	30.7	33.7	35.5
Latin America & Carib.	13.7	17.4	22.6	25.0	24.5	17.9	17.8	23.1	28.4	27.9
North America	12.1	13.8	16.6	16.6	17.5	11.1	13.0	13.6	12.3	
Europe	27.5	28.5	36.2	35.2	37.0	27.0	30.1	36.7	36.5	37.7
Other Asia-Pacific										
World	19.5	21.1	25.0	27.0	28.2	19.8	21.8	25.2	27.6	29.2

20.2 Merchandise trade

	Imports of merchandise					Exports of merchandise				
	Million US dollars					Million US dollars				
	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006
East and North-East Asia										
China	53 345	132 084	225 094	659 953	791 600	62 091	148 780	249 203	761 953	969 100
DPR Korea						1 857	959	708	1 422	
Hong Kong, China	82 490	192 751	212 805	299 533	335 754	82 160	173 750	201 860	289 337	322 669
Macao, China	1 533	2 025	2 261	3 913	4 742	1 701	2 025	2 547	2 476	2 936
Mongolia	924	415	615	1 184	1 489	661	473	536	1 065	1 529
Republic of Korea	69 844	135 119	160 481	261 238	309 660	65 016	125 058	172 267	284 419	326 159
South-East Asia										
Brunei Darussalam	1 001	2 091	1 107	1 491		2 213	2 402	3 903	6 250	
Cambodia	164	1 187	1 936	3 928	4 527	86	855	1 961	2 910	3 372
Indonesia	21 837	40 629	33 515	69 498	76 322	25 675	45 418	62 124	85 660	102 973
Lao PDR	185	589	535	809	980	79	311	330	506	655
Malaysia	29 258	77 691	81 963	114 411	130 926	29 452	73 914	98 229	140 870	160 490
Myanmar	273	1 348	2 401	1 927	1 906	328	860	1 646	3 813	3 673
Philippines	13 004	28 341	37 027	46 964	52 819	8 117	17 502	39 783	39 879	47 492
Singapore	60 774	124 507	134 545	200 047	237 570	52 730	118 268	137 804	229 649	270 570
Thailand	33 045	70 786	61 923	118 158	125 975	23 068	56 439	68 963	110 178	128 220
Timor-Leste										
Viet Nam	2 752	8 155	15 638	36 476	35 367	2 404	5 449	14 449	31 625	35 377
South and South-West Asia										
Afghanistan	936	368	1 176	2 520		235	166	137	340	
Bangladesh	3 618	6 502	8 360	13 889	16 017	1 671	3 733	6 399	9 297	12 277
Bhutan	81	112	175	500		70	103	103	304	
India	23 580	34 707	51 523	139 360	169 835	17 969	30 630	42 379	99 474	120 887
Iran (Islamic Rep. of)	18 330	12 774	15 207	39 562	40 507	19 305	18 360	28 345	59 690	64 514
Maldives	137	268	389	745	927	78	85	109	162	225
Nepal	672	1 333	1 573	1 860	2 604	204	345	804	830	817
Pakistan	7 376	11 461	10 864	25 357	28 405	5 589	7 992	9 028	16 051	16 470
Sri Lanka	2 685	5 185	6 281	8 834	10 353	1 912	3 798	5 430	6 347	6 735
Turkey	22 302	35 709	54 503	98 998	137 460	12 959	21 637	27 775	71 928	82 654
North and Central Asia										
Armenia		674	882	1 768	2 194		271	294	950	1 004
Azerbaijan		668	1 172	4 200	5 268		637	1 745	4 347	6 372
Georgia		392	709	2 491	3 681		151	323	867	993
Kazakhstan		3 807	5 040	17 353	23 677		5 250	8 812	27 849	38 250
Kyrgyzstan		522	554	1 108	1 718		409	505	672	794
Russian Federation		60 945	44 862	125 303	137 548		82 913	105 565	243 569	301 976
Tajikistan		810	675	1 330	1 723		749	780	909	1 399
Turkmenistan		777	1 786	3 443	3 595		1 939	2 506	4 939	5 324
Uzbekistan		2 900	2 697	3 710			3 430	2 817	4 837	
Pacific										
American Samoa	360	416	506	506	342	311	272	346	374	432
Cook Islands	52	49	51	75		5	5	7	5	
Fiji	754	892	856	1 607	1 845	497	619	538	701	695
French Polynesia	928	1 008	1 072	1 702	1 658	111	194	244	210	236
Guam	461	442	421	692		82	85	74	52	
Kiribati	27	34	40	76	64	3	7	4	4	6
Marshall Islands										
Micronesia (F.S.)										
Nauru	38	28	27	14		60	28	28	7	
New Caledonia	883	951	922	1 774	1 912	480	471	606	1 114	989
Niue										
Northern Mariana Is.										
Palau										
Papua New Guinea	1 118	1 451	1 151	1 729	1 987	1 144	2 645	2 095	3 280	4 015
Samoa	81	95	90	187	282	9	9	14	12	68
Solomon Islands	91	154	92	185	220	70	168	65	105	135
Tonga	62	77	69	110	117	11	14	9	10	10
Tuvalu	4	6	5	13		1	0	0	0	
Vanuatu	96	95	87	131	136	19	28	26	38	
ESCAP Developed Economies										
Australia	41 985	61 283	71 529	125 281	133 613	39 752	53 111	63 870	105 832	123 715
Japan	235 368	335 882	379 511	514 922	578 086	287 581	443 116	479 249	594 905	644 541
New Zealand	9 501	13 957	13 905	26 234	26 477	9 394	13 645	13 297	21 729	22 343
ESCAP	741 954	1 414 450	1 650 609	2 987 099	3 450 900	757 160	1 469 478	1 860 642	3 273 751	3 846 345
LLDC	6 436	12 975	16 880	39 785	49 978	6 841	14 084	19 370	47 548	61 626
LDC	6 366	12 090	16 859	26 778	30 695	2 853	6 672	11 599	18 320	21 911
SIDS	65 865	130 472	140 323	209 593	247 852	55 611	122 898	141 969	235 722	277 483
ASEAN	162 292	355 323	370 591	593 708	667 883	144 152	321 418	429 192	651 340	759 071
SAARC	39 086	59 936	80 341	193 065	231 160	27 728	46 853	64 390	132 805	158 056
Central Asia	3 864	10 550	13 515	35 403	45 566	5 661	12 836	17 782	45 370	58 973
Low-income	43 168	71 902	99 791	235 372	273 006	34 025	59 174	84 640	177 136	207 999
Middle-income	230 889	472 450	572 176	1 314 798	1 546 138	229 549	478 146	700 245	1 560 630	1 917 875
High-income	504 767	870 016	978 559	1 436 826	1 631 654	541 220	932 126	1 075 721	1 535 973	1 720 458
Africa	103 151	126 726	130 973	246 931	278 432	111 277	112 047	147 173	298 026	332 801
Latin America & Carib.	127 195	248 926	388 885	515 178	606 663	143 801	228 373	361 101	566 842	679 988
North America	641 358	939 938	1 505 222	2 065 559	2 278 735	521 758	777 370	1 058 872	1 267 022	1 442 551
Europe	1 935 413	2 466 974	2 868 285	4 396 023	5 022 734	1 896 773	2 553 974	2 842 667	4 363 201	4 927 781
Other Asia-Pacific	137 181	223 375	290 815	487 515	552 009	184 188	245 932	387 793	667 385	748 913
World	3 590 163	5 220 317	6 642 126	10 712 215	12 203 386	3 478 571	5 168 506	6 444 106	10 440 780	11 982 932

20.3 Growth in international trade

	Average annual growth rate of imports of merchandise (Percentage)				Average annual growth rate of exports of merchandise (Percentage)				Current account balance (% of GDP)			
	90-95	95-00	00-05	2006	90-95	95-00	00-05	2006	1990	1995	2000	2006
East and North-East Asia												
China	19.9	11.3	24.0	19.9	19.1	10.9	25.0	27.2	3.1	0.2	1.7	9.1
DPR Korea					-12.4	-5.9	15.0					
Hong Kong, China	18.5	2.0	7.1	12.1	16.2	3.0	7.5	11.5	6.2	-6.3	4.1	10.2
Macao, China	5.7	2.2	11.6	21.2	3.5	4.7	-0.6	18.6				
Mongolia	-14.8	8.2	14.0	25.7	-6.5	2.5	14.7	43.6		2.1	-5.7	6.1
Republic of Korea	14.1	3.5	10 2	18.5	14.0	6.6	10.5	14.7	-0.8	-1.7	2.4	0.7
South-East Asia												
Brunei Darussalam	15.9	-11.9	6.1		1.7	10.2	9.9		83.1	48.9	48.6	58.7
Cambodia	48.6	10.3	15.2	15.3	58.3	18.1	8.2	15.9	-3.9	-5.0	-2.8	-4.8
Indonesia	13.2	-3.8	15.7	9.8	12.1	6.5	6.6	20.2	-2.5	-3.0	4.8	2.7
Lao PDR	26.1	-1.9	8.6	21.2	31.6	1.2	8.9	29.5	-8.9	-6.9	-10.6	-13.4
Malaysia	21.6	1.1	6.9	14.4	20.2	5.9	7.5	13.9	-2.1	-9.7	9.4	15.8
Myanmar	37.7	12.2	-4.3	-1.1	21.2	13.9	18.3	-3.7	-21.9	-3.7	-0.8	4.1
Philippines	16.9	5.5	4.9	12.5	16.6	17.8	0.0	19.1	-6.1	-2.6	-2.9	2.9
Singapore	15.4	1.6	8.3	18.8	17.5	3.1	10.8	17.8	8.5	17.1	11.6	27.5
Thailand	16.5	-2.6	13.8	6.6	19.6	4.1	9.8	16.4	-8.3	-7.9	7.6	1.6
Timor-Leste											-60.2	116.3
Viet Nam	24.3	13.9	18.5	-3.0	17.8	21.5	17.0	11.9	-4.0	-12.8	2.3	0.3
South and South-West Asia												
Afghanistan	-17.0	26.2	16.5		-6.7	-3.7	19.9					-1.7
Bangladesh	12.4	5.2	10.7	15.3	17.4	11.4	7.8	32.1	-3.1	-2.3	-1.4	0.9
Bhutan	6.7	9.3	23.3		8.2	-0.1	24.2		-10.0	3.4	-9.4	-0.5
India	8.0	8.2	22.0	21.9	11.3	6.7	18.6	21.5	-2.5	-1.6	-1.0	-2.2
Iran (Islamic Rep. of)	-7.0	3.5	21.1	2.4	-1.0	9.1	16.1	8.1	-3.2	3.7	13.0	6.7
Maldives	14.3	7.7	13.9	24.4	1 7	5.0	8.3	39.4	11.2	-4.6	-8.2	-36.5
Nepal	14.7	3.4	3.4	40.0	11.1	18.4	0.6	-1.5	-8.1	-2.3	3.2	2.4
Pakistan	9.2	-1.1	18.5	12.0	7.4	2.5	12.2	2.6	-2.9	-2.9	-0.3	-3.9
Sri Lanka	14.1	3.9	7.1	17.2	14.7	7.4	3.2	6.1	-4.7	-6.0	-6.5	-4.1
Turkey	9.9	8.8	12.7	38.9	10.8	5.1	21.0	14.9	-1.7	-0.3	-5.0	-8.0
North and Central Asia												
Armenia		5.5	14.9	24.1		1.7	26.4	5.6		-17.0	-14.6	-5.0
Azerbaijan		11.9	29.1	25.4		22.3	20.0	46.6		-13.2	-3.5	15.7
Georgia		12.6	28.6	47.8		16.4	21.9	14.6		-18.3	-7.9	-9.5
Kazakhstan		5.8	28.1	36.4		10.9	25.9	37.3		-1.3	3.0	-1.4
Kyrgyzstan		1.2	14.9	55.1		4.3	5.9	18.2		-16.0	-4.3	-16.8
Russian Federation		-5.9	22.8	9.8		4.9	18.2	24.0		2.2	18.0	9.8
Tajikistan		-3.6	14.5	29.5		0.8	3.1	53.9		-17.9	-1.6	-2.5
Turkmenistan		18.1	14.0	4.4		5.3	14.5	7.8		-9.1	8.2	15.3
Uzbekistan		-1.4	6.6			-3.9	11.4			10.6	1.8	19.4
Pacific												
American Samoa	2.9	4.0	0.0	-32.5	-2.7	5.0	1.5	15.5				
Cook Islands	-1.2	1.0	8.0		-1.4	10.0	-7.9					
Fiji	3.4	-0.8	13.4	14.8	4.5	-2.8	5.4	-0.8	-3.3	-0.9	-5.8	-20.4
French Polynesia	1.7	1.2	9.7	-2.6	11.8	4.7	-2.9	12.0				
Guam	-0.8	-1.0	10.4		0.7	-2.7	-6.8					
Kiribati	4.8	3.0	14.1	-15.8	20.1	-12.9	-0.1	79.0	2.7	3.1	-1.2	-37.9
Marshall Islands												
Micronesia (F.S.)												
Nauru	-5.9	-0.7	-12.3		-14.2	0.0	-24.2					
New Caledonia	1.5	-0.6	14.0	7.8	-0.4	5.1	13.0	-11.2				
Niue												
Northern Mariana Is.												
Palau												
Papua New Guinea	5.4	-4.5	8.5	14.9	18.2	-4.5	9.4	22.4	-2.9	18.3	8.5	7.4
Samoa	3.3	-1.0	15.7	50.7	-0.1	10.1	-3.5	472.5	8.7	4.9	1.0	-6.2
Solomon Islands	11.0	-9.7	14.9	18.7	19.0	-17.3	10.0	28.9	-13.0	3.7	-10.6	-22.8
Tonga	4.5	-2.2	9.8	6.6	4.6	-9.3	2.8	0.9	-14.5	-11.3	-6.2	-7.4
Tuvalu	7.9	-1.9	20.1		-27.1	-43.1	44.4					
Vanuatu	-0.2	-1.8	8.6	3.8	8.5	-1.5	7.7		2.7	-2.2	2.0	-8.0
ESCAP Developed Economies												
Australia	7.9	3.1	11.9	6.7	6.0	3.8	10.6	16.9	-5.1	-5.2	-3.8	-5.4
Japan	7.4	2.5	6.3	12.3	9.0	1.6	4.4	8.3	1.4	2.1	2.6	3.9
New Zealand	8.0	-0.1	13.5	0.9	7.8	-0.5	10.3	2.8	-3.2	-5.0	-5.1	-8.8
ESCAP	13.8	3.1	12.6	15.5	14.2	4.8	12.0	17.5				
LLDC		5.4	18.7	25.6		6.6	19.7	29.6				
LDC	13.7	6.9	9.7	14.7	18.5	11.7	9.6	19.6				
SIDS	14.6	1.5	8.4	18.3	17.2	2.9	10.7	17.7				
ASEAN	17.0	0.8	9.9	12.5	17.4	6.0	8.7	16.5				
SAARC	8.9	6.0	19.2	19.7	11.1	6.6	15.6	19.0				
Central Asia		5.1	21.2	28.7		6.7	20.6	30.0				
Low-income	10.7	6.8	18.7	16.0	11.7	7.4	15.9	17.4				
Middle-income		3.9	18.1	3.3		7.9	17.4	22.9				
High-income	11.5	2.4	8.0	2.6	11.5	2.9	7.4	12.0				
Africa	4.2	0.7	13.5	2.4	0.1	5.6	15.2	11.7				
Latin America & Carib.	14.4	9.3	5.8	3.3	9.7	9.6	9.4	20.0				
North America	7.9	9.9	6.5	2.0	8.3	6.4	3.7	13.9				
Europe	5.0	3.1	8.9	2.7	6.1	2.2	8.9	12.9				
Other Asia-Pacific	10.2	5.4	10.9	2.5	6.0	9.5	11.5	12.2				
World	7.8	4.9	10.0	13.9	8.2	4.5	10.1	14.8				

20.4 Export concentration

	Exports concentration index					Primary products export share				
						% of products exports				
	1995	2000	2003	2004	2005	1995	2000	2003	2004	2005
East and North-East Asia										
China	0.07	0.08	0.10	0.11	0.11	15.73	11.56	9.19	8.40	7.87
DPR Korea						48.40	23.68	31.97	22.28	22.28
Hong Kong, China	0.09	0.11	0.13	0.14	0.15	6.92	4.54	3.57	3.39	3.15
Macao, China	0.29	0.33	0.32	0.31	0.31	4.07	2.52	3.91	4.94	4.94
Mongolia	0.50	0.38	0.34	0.41	0.42	89.73	63.54	48.03	51.80	54.26
Republic of Korea	0.15	0.16	0.15	0.16	0.16	6.55	9.17	7.25	7.77	9.07
South-East Asia										
Brunei Darussalam	0.61	0.60	0.60	0.60		90.35	88.83	82.29	79.95	79.95
Cambodia		0.38	0.42	0.42	0.42	29.68	2.72	2.63	3.09	3.09
Indonesia	0.14	0.13	0.12	0.10	0.13	49.35	42.64	46.51	39.70	52.85
Lao PDR	0.26	0.32	0.35	0.35		44.66	41.62	49.00	46.33	46.33
Malaysia	0.18	0.22	0.22	0.20	0.19	23.98	18.82	23.16	23.19	23.96
Myanmar	0.31	0.27	0.30	0.34		82.83	51.63	68.95	79.67	79.67
Philippines	0.36	0.43	0.43	0.37	0.36	19.80	7.91	9.87	9.67	11.13
Singapore	0.21	0.28	0.24	0.25	0.25	13.84	13.55	13.14	13.33	15.23
Thailand	0.09	0.11	0.09	0.08	0.09	25.98	22.26	22.41	22.44	21.74
Timor-Leste	0.27	0.99	0.25	0.81						
Viet Nam	0.21	0.25	0.21		0.23	51.78	54.27	46.37	45.06	45.06
South and South-West Asia										
Afghanistan										
Bangladesh	0.35	0.43	0.41	0.38	0.38	12.37	6.85	6.29	7.38	7.38
Bhutan	0.33	0.42	0.31	0.29		30.24	60.23	27.20	25.33	25.33
India	0.14	0.13	0.12	0.13	0.13	26.06	22.79	24.31	27.55	30.33
Iran (Islamic Rep. of)	0.83	0.91	0.86	0.76	0.79	90.94	92.93	84.70	83.76	88.52
Maldives	0.41	0.35	0.47	0.42	0.50	43.79	37.74	50.52	69.81	87.40
Nepal	0.47	0.31	0.17	0.17		9.42	9.38	25.59	25.97	25.97
Pakistan	0.24	0.22	0.23	0.22	0.23	17.08	15.34	15.16	14.77	18.14
Sri Lanka	0.22	0.24	0.24	0.23	0.21	24.09	23.42	24.65	24.87	27.08
Turkey	0.11	0.10	0.10	0 10	0.09	25.62	17.40	15.12	14.76	17.44
North and Central Asia										
Armenia	0.25	0.33	0.42	0.32	0.36	42.24	37.65	29.98	34.31	25.47
Azerbaijan	0.61	0.60	0.70	0.63	0.55	80.30	93.55	94.72	90.42	88.95
Georgia	0.17	0.16	0.20	0.22	0.20	62.18	68.67	68.16	61.00	57.27
Kazakhstan	0.21	0.47	0.52	0.55	0.61	61.57	79.93	82.52	83.06	87.27
Kyrgyzstan	0.14	0.40	0.43	0.38	0.33	58.62	42.31	33.09	34.21	34.96
Russian Federation	0.26	0.29	0.31	0.33	0.38	54.81	63.23	63.95	61.38	59.49
Tajikistan	0.47	0.54	0.57	0.53		83.82	74.21	85.90	83.71	83.71
Turkmenistan	0.45	0.53	0.81	0.81		91.57	91.58	75.15	72.21	72.21
Uzbekistan	0.49	0.37	0.37	0.30		83.47	84.51	61.22	46.48	46.48
Pacific										
American Samoa										
Cook Islands	0.33	0.90	0.61	0.48	0.48	44.28	4.77	76.02	63.11	63.11
Fiji	0.38	0.26	0.27	0.23	0.29	59.17	34.63	38.89	40.51	72.32
French Polynesia	0.64	0.71	0.63	0.61	0.60	3.84	6.97	16.81	16.56	15.19
Guam										
Kiribati	0.64	0.70	0.83	0.57	0.36	86.93				85.58
Marshall Islands	0.63	0.62	0.73	0.51						
Micronesia (F.S.)	0.90	0.76	0.81	0.85						
Nauru	0.71	0.77	0.40	0.33		68.25	94.76			418.57
New Caledonia	0.62	0.65	0.68	0.66	0.67	51.81	41.31	27.65	35.59	32.12
Niue	0.42	0.38	0.54	0.23						
Northern Mariana Is.	0.26	0.51	0.39	0.46						
Palau	0.68	0.61	0.79	0.80						
Papua New Guinea	0.38	0.50	0.37	0.37		88.39		90.65	88.51	88.51
Samoa	0.72	0.64	0.68	0.69	0.69	16.31	32.29			
Solomon Islands	0.60	0.59	0.65	0.66		98.47	95.72		73.80	73.80
Tonga	0.58	0.54	0.45	0.55		90.57	95.66	77.25		
Tuvalu										
Vanuatu	0.30	0.39	0.52	0.48		87.95	81.41	62.21	61.35	61.35
ESCAP Developed Economies										
Australia	0.12	0.16	0.17	0.18	0.17	63.67	67.02	61.52	66.33	68.45
Japan	0.12	0.14	0.15	0.14	0.14	2.66	2.47	2.68	2.92	3.51
New Zealand	0.12	0.12	0.13	0.13	0.13	67.31	64.71	64.13	64.88	65.50
ESCAP	0.15	0.18	0.18	0.18	0.18	18.47	18.30	18.20	18.21	19.99
LLDC	0.36	0.46	0.54	0.54		71.79	77.32	74.69	73.84	76.95
LDC	0.36	0.38	0.38	0.37	0.39	28.68	15.33	21.42	21.98	25.63
SIDS	0.22	0.28	0.24	0.25	0.25	15.99	15.29	14.62	14.61	16.62
ASEAN	0.19	0.23	0.21	0.20	0.20	25.12	22.02	23.79	22.40	25.33
SAARC	0.18	0.19	0.17	0.17	0.17	23.19	20.13	21.59	24.27	27.11
Central Asia	0.35	0.47	0.55	0.54	0.58	73.69	81.41	77.22	75.73	78.73
Low-income	0.22	0.22	0.20	0.19	0.18	35.40	31.40	29.94	31.04	33.21
Middle-income	0.18	0.20	0.19	0.19	0.20	32.75	29.02	26.55	25.32	26.45
High-income	0.13	0.16	0.16	0.16	0.16	10.07	10.29	9.93	10.52	11.91
Africa	0.41	0.53	0.51	0.54	0.36	63.98	70.73	66.90	66.44	69.93
Latin America & Carib.	0.20	0.21	0.20	0.22	0.24	49.29	40.83	42.81	45.72	49.11
North America	0.09	0.10	0.09	0.09	0.09	21.67	17.24	19.49	20.20	21.09
Europe	0.09	0.11	0.11	0.11	0.11	17.22	16.11	16.01	16.91	17.57
Other Asia-Pacific	0.39	0.47	0.45	0.36	0.32	42.86	47.03	48.51	49.52	51.73
World										

21. Fiscal balance

Developing economies in Asia and the Pacific have gradually managed to lower their annual budget deficit in proportion to their GDP levels, on average from 3.2 per cent in 1998 to 1.1 per cent in 2006. This was mainly attributable to fiscal consolidation efforts, low interest rates and sustained economic growth.

A fiscal balance improvement could be found in almost all subregions in Asia and the Pacific, but particularly landlocked developing countries, least developed countries, SAARC countries and low-income economies. For example, in the case of least developed countries in Asia and the Pacific, the average government deficit relative to GDP was 1.6 per cent in 1990 but turned into a surplus as of 2002, with 2.8 per cent in 2006.

China, for example, has been running a low budget deficit since 1990. The slight decrease from 1.2 per cent of GDP in 2005 to 0.7 per cent in 2006 reflects to a large extent the increased tax revenues due to the current boom in the economy. Singapore has been among the top performers in maintaining high surpluses since 1990, with 7 per cent in 2005, the latest year for which data are available.

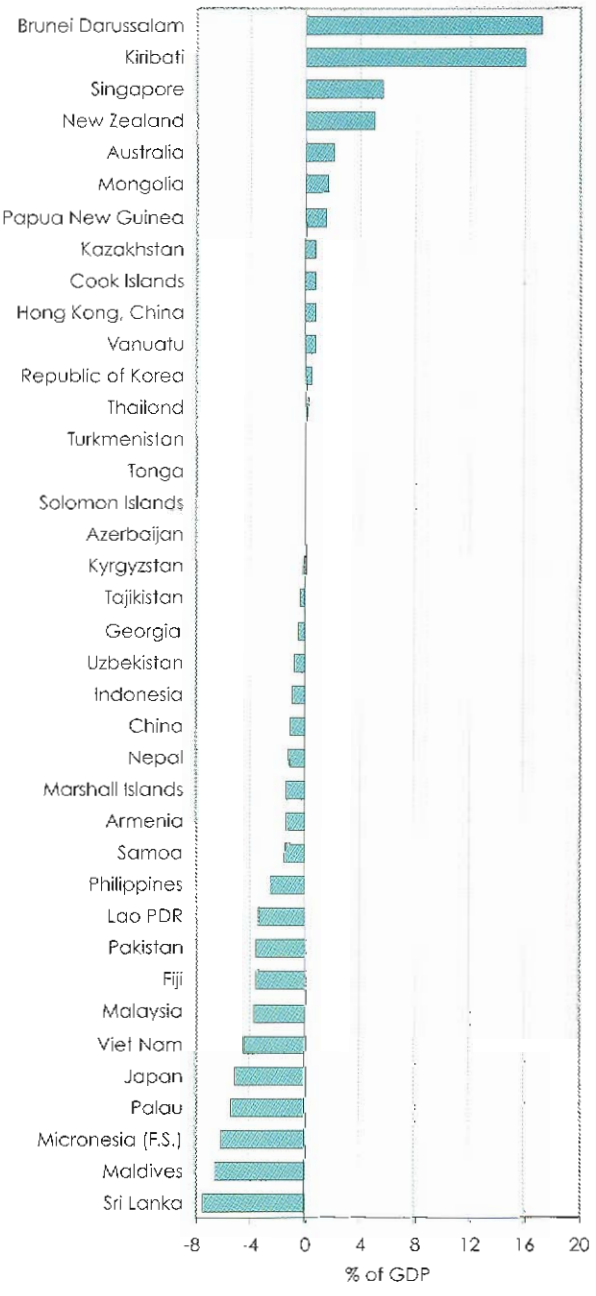
The Maldives and Sri Lanka had the highest government deficits in the Asian and Pacific region since 1990. The deficit of the Government of Maldives reached an all-time high in 2005, at more than 10 per cent of its GDP, while the deficit of the Government of Sri Lanka has remained high, at over 7 per cent, since 1990 (figure 21.1).

Average government expenditure amounted to 19 per cent of GDP in developing economies of Asia and the Pacific in 2006. However, the rates varied significantly across countries. In Maldives, for example, public spending was nearly 70 per cent of GDP, but in Bangladesh it was only 13 per cent.

Likewise, large variations could be observed for government revenue across countries. For instance, in 2006, the GDP share of public revenue in Nepal was very low, at 12.5 per cent, compared with 50 per cent in Brunei Darussalam and 43.8 per cent in Maldives.

A significant improvement in the fiscal conditions of "resource-rich" countries since 2002 is mainly attributable to a sharp increase in the prices of commodities (such as oil, gold and copper),[1] which had produced large windfall revenues for resource-rich economies. For example, due to higher oil prices, fiscal balance in Timor-Leste has increased from 2 per cent to more than 110 per cent of its GDP.

Figure 21.1 Fiscal balance relative to GDP in Asia and the Pacific, 2004-2006 average



[1] According to IMF (2005), resource-rich economies are defined as those with at least 25 per cent of total fiscal revenue or export receipts from non-renewable commodities.

Fiscal balance (percentage of GDP): The difference between total revenues and total expenditures of the central Government. *Aggregates:* Averages are calculated using total GDP in United States dollars as weight. *Source:* Asian Development Bank, *Key Indicators* 2007 (online publication, accessed in August 2007) and International Monetary Fund, World Economic Outlook Database (online database, accessed in October 2007).

21.1 Fiscal balance

Fiscal balance

% of GDP

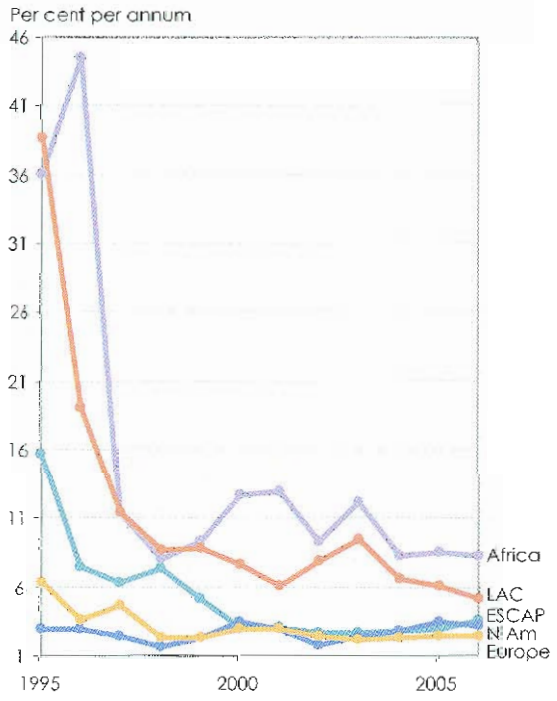
	1990	1995	2000	2001	2002	2003	2004	2005	2006
East and North-East Asia									
China	-2.8		-2.8	-2.5	-2.6	-2.2	-1.3	-1.2	-0.7
DPR Korea									
Hong Kong, China		-2.8	-1.8	1.3	0.2	-0.8	-1.0	2.5	
Macao, China									
Mongolia	-11.0	-1.5	-7.7	-4.5	-5.8	-4.2	-2.0	2.9	3.9
Republic of Korea	-0.6	0.3	1.1	1.2	3.3	1.1	0.7	0.4	0.4
South-East Asia									
Brunei Darussalam	-0.3	15.1	10.9	0.4	-9.9	-1.7	13.5	25.2	12.8
Cambodia									
Indonesia	-0.9	3.0	-1.1	-2.4	-1.5	-1.7	-1.0	-0.5	-1.0
Lao PDR	-9.7	-12.9	-4.3	-4.2	-3.2	-5.4	-2.4	-4.3	
Malaysia	-2.9	0.8	-5.5	-5.2	-5.3	-5.0	-4.1	-3.6	-3.3
Myanmar	-2.8	-3.3	0.7						
Philippines	-3.5	0.6	-4.0	-4.0	-5.3	-4.6	-3.8	-2.7	-1.1
Singapore	10.8	14.5	10.0	5.1	4.8	3.1	4.1	7.0	
Thailand	4.8	3.0	-2.2	-2.4	-1.4	0.4	0.1	-0.6	1.1
Timor-Leste				2.0	0.4	3.8	10.9	75.8	110.2
Viet Nam	-7.2	-1.3	-5.0	-4.0	-3.1	-4.8	-4.7	-4.6	-4.1
South and South-West Asia									
Afghanistan									
Bangladesh	-0.4	1.5	0.8	0.8	2.4	2.1	3.0	2.5	3.0
Bhutan	-7.8	0.1	-3.8	-10.6	-4.7	-9.9	1.8	-6.5	
India	-7.8	-5.1	-5.7	-6.2	-5.9	-4.5	-4.0	-4.1	-3.7
Iran (Islamic Rep. of)									
Maldives		-6.4	-4.4	-4.7	-4.9	-3.4	-1.6	-10.9	-7.1
Nepal	-8.1	-4.8	-4.7	-5.9	-5.4	-1.5	-1.0	-0.8	-1.8
Pakistan	-6.5	-5.6	-5.5	-4.3	-4.5	-4.1	-2.1	-4.2	-4.3
Sri Lanka	-7.9	-8.8	-9.5	-10.4	-8.4	-7.5	-7.7	-7.2	-7.2
Turkey									
North and Central Asia									
Armenia		-6.0	-4.9	-4.3	-2.6	-1.3	-1.7	-1.9	-0.6
Azerbaijan		-5.2	-1.0	-0.4	-0.4	-0.2	0.1	-0.7	0.5
Georgia		-5.9	-3.9	-2.2	-1.7	-2.6	2.3	-1.6	-1.9
Kazakhstan		-4.0	-0.1	-0.4	-0.3	-0.9	-0.3	1.9	0.8
Kyrgyzstan	-8.2	-11.5	-2.0	0.4	-1.0	-0.8	-0.5	0.2	-0.2
Russian Federation									
Tajikistan		-7.4	-0.6	0.1	0.7	1.1	0.2	-1.6	0.4
Turkmenistan		0.4	-0.3	0.6	0.2	-1.4	0.0		
Uzbekistan		-2.9	-1.0	0.2	-0.9	-1.3	0.0	-1.0	-1.3
Pacific									
American Samoa									
Cook Islands		-2.8	-1.8	1.3	0.2	-0.8	-1.7	2.5	
Fiji	-1.8	-0.3	-4.8	-6.1	-5.3	-5.8	-3.2	-4.0	
French Polynesia									
Guam									
Kiribati	26.2	19.8	59.8	13.4	3.9	15.7	18.	13.9	
Marshall Islands	1.9	-27.2	8.3	8.7	-4.0	11.1	-0.4	-2.2	
Micronesia (F.S.)	11.8	-1.5	-6.6	-8.9	6.7	0.3	-6.4	-5.7	
Nauru									
New Caledonia									
Niue									
Northern Mariana Is.									
Palau			-15.1	-20.1	-28.6	-2.3	-6.8	-3.9	
Papua New Guinea	-3.3	-0.5	-1.8	-3.1	-3.9	-1.0	1.6	0.3	2.5
Samoa		-7.0	-0.7	-1.8	-3.4	-1.8	-0.8	-3.0	-0.6
Solomon Islands	-4.7	-4.6	-0.6	-7.4	-20.2	-5.8	4.9	-0.9	-4.0
Tonga	0.7	1.2	-0.4	-1.5	-1.4	-3.1	0.9	2.4	-3.3
Tuvalu			-2.2	-45.7	33.7				
Vanuatu	-8.2	-2.7	-7.0	-3.7	-2.2	-1.8	1.2	2.1	-1.0
ESCAP Developed Economies									
Australia	0.3	-2.0	1.7	0.8	1.0	1.6	2.0	2.4	1.6
Japan	2.1	-4.7	-7.6	-6.3	-8.0	-8.0	-6.2	-4.8	-4.1
New Zealand	-1.7	3.2	1.2	1.6	1.7	3.4	4.6	5.7	5.0
ESCAP									
LLDC		-4.3	-1.4	-1.2	-1.2	-1.2	-0.4	0.5	0.3
LDC	-1.6	-0.2	0.1	-0.2	1.2	1.3	2.4	2.0	2.8
SIDS	9.1	13.0	9.1	4.4	4.0	2.6	3.8	6.4	
ASEAN	1.0	3.7	-0.7	-2.0	-1.8	-1.7	-0.9	-0.2	-0.9
SAARC	-7.1	-4.7	-5.2	-5.5	-5.1	-4.0	-3.3	-3.8	-3.5
Central Asia		-4.1	-1.0	-0.4	-0.6	-1.0	-0.1	0.7	0.2
Low-income	-7.0	-4.4	-4.9	-5.2	-4.9	-3.9	-3.2	-3.6	-3.3
Middle-income			-2.8	-2.7	-2.7	-2.2	-1.4	-1.3	-0.8
High-income									
Africa									
Latin America & Carib.									
North America									
Europe									
Other Asia-Pacific									
World									

22. Inflation and interest rates

Steadily rising oil prices since 2001 continue to exert upward pressure on price levels worldwide. Despite tighter monetary policies in many countries of the region since 2005, there has been an increase in the Asian and Pacific region's average inflation rate, from 2.8 per cent in 2005 to 3.5 per cent in 2006.

Excluding developed economies, average inflation in Asia and the Pacific rose from 5.5 per cent in 2005 to 5.7 per cent in 2006. Compared with other regions in the world, Asia and the Pacific had slightly higher inflation than Europe (2.3 per cent) and North America (3.1 per cent), but lower than Latin America and the Caribbean (5.1 per cent) and Africa (8.2 per cent).

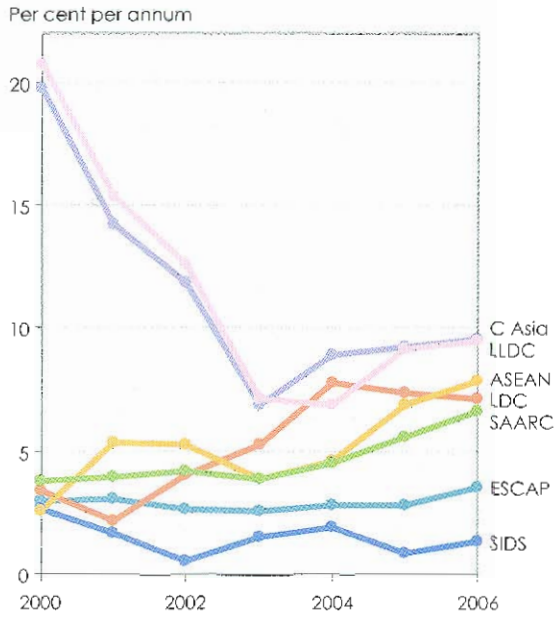
Figure 22.1 Inflation, by world region, 1995-2006



Inflation rates varied substantially, however, between countries and groups of countries. Economies with higher income levels were generally able to keep inflation rates at lower levels. Inflation among high-income economies have remained below 1 per cent throughout the last decade, despite an increase from 0.3 per cent in 2005. This is mainly due to the low inflation rate in Japan, which has been between -0.9 and 0.2 per cent since 2000. Low- and middle-income economies have had substantially higher inflation rates since 2000, ranging from 4.0 to 6.7 per cent and 6.3 to 10.4 per cent, respectively.

The country groupings with the highest inflation rates in the Asian and Pacific region since 1995 were landlocked developing countries and

Figure 22.2 Inflation in selected Asian and Pacific country/area groupings, 2000-2006



Central Asian countries. Both groupings were equally affected by the Russian financial crisis in the early 1990s after the break-up of the Union of Soviet Socialist Republics. The two groupings overlap to a large extent — the Central Asian countries are almost all landlocked developing countries. Despite a decline from the record-high levels of the early 1990s, inflation rates remained high; in 2006, they neared 10 per cent, which is three times the average of the Asian and Pacific region.

For many countries in Asia and the Pacific, the fluctuations in inflation rates have been substantial since 1990. This is true in particular for the economies most affected by the Asian financial crisis in 1997-1998. Inflation in Indonesia, for example, was about 7.8 per cent in 1990, then peaked at nearly 58 per cent in 1998 but was below 7 per cent by 2004 (figure 22.3). Other examples of economies with large inflation rate variations include such oil-importing economies as Malaysia, Thailand, Nepal and Pakistan, where the steady increase in oil prices caused inflation rates to nearly double between 2004 and 2006.

Despite strong economic growth in China, inflation has remained generally well below 5 per cent since 1990 and below 2 per cent since 2005. The inflation rate in India, in contrast, continues to increase, from 3.8 per cent in 2004 to 4.2 per cent in 2005 and finally to 6.1 per cent in 2006.

Central banks today mostly use open-market interventions to influence money supply and thus

Figure 22.3 Inflation in selected Asian countries, 2000-2006

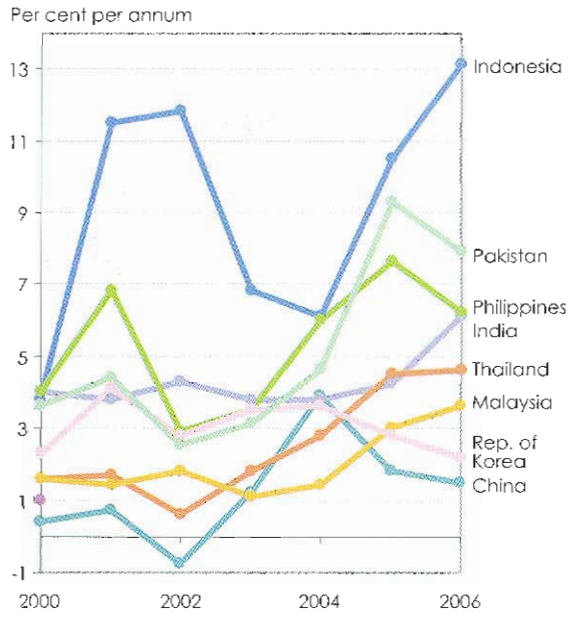
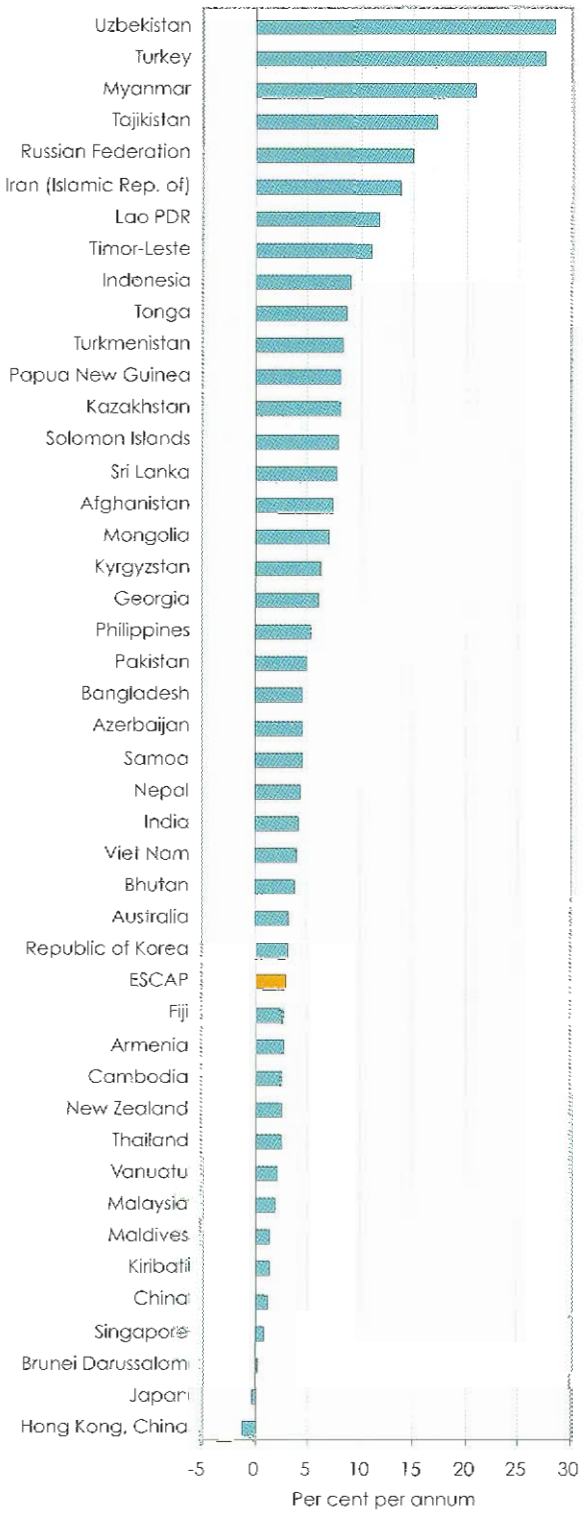


Figure 22.4 Average inflation in Asia and the Pacific, 2000-2006



inflation rates. However, a central bank's discount rates are often used as a signalling tool for capital markets to have an indication of the economic situation of a country, particularly in the case of the United States.

Interest rates

The upward pressure on price levels from steadily rising oil prices alone does not require tighter monetary policies. However, in many economies in the Asian and Pacific region, inflation is not only of the supply-push type; it is also due to demand-pull factors. To prevent overheating of the economy, many central banks have halted the steady lowering of discount rates since 1998 and adopted tighter monetary policies in recent years.

During the period 1998-2006, following the Asian financial crisis, many economies in Asia and the Pacific lowered discount rates (figure 22.5). The Central Bank of the Philippines, for example, has reduced the discount rate from 12.4 per cent in 1998 to 7.9 per cent in 1999 and 5 per cent in 2006. Similarly, the Central Bank of Thailand reduced its discount rate from 12.5 per cent in 1998 to 5.5 per cent in 2005. The slight increase to 6.5 per cent in 2006 is consistent with the steady appreciation of the Thai baht against the United States dollar since 2000.

These discount-rate policy decisions only concern the short-term rates at which the commercial banks are able to borrow from central banks. They influence money market rates, but their effect on capital markets with longer maturities is much less clear, as capital market rates also depend on credit ratings, maturity and exchange rates. In general, the interest rates on 10-year government bonds vary less than the short-term central bank discount rates or Treasury bill rates (Treasury bill rates generally follow the pattern of a central bank's discount rates).

In the case of the Philippines, for example, the 10-year government bond yield declined more

Figure 22.5 Central bank discount rate of selected countries, 1990-2006

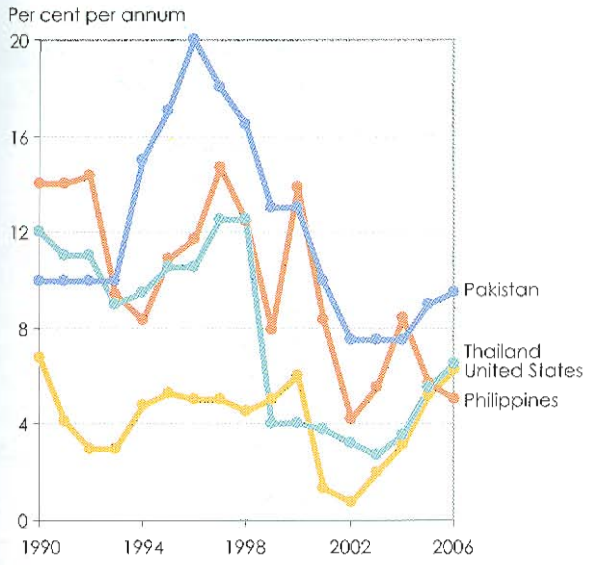
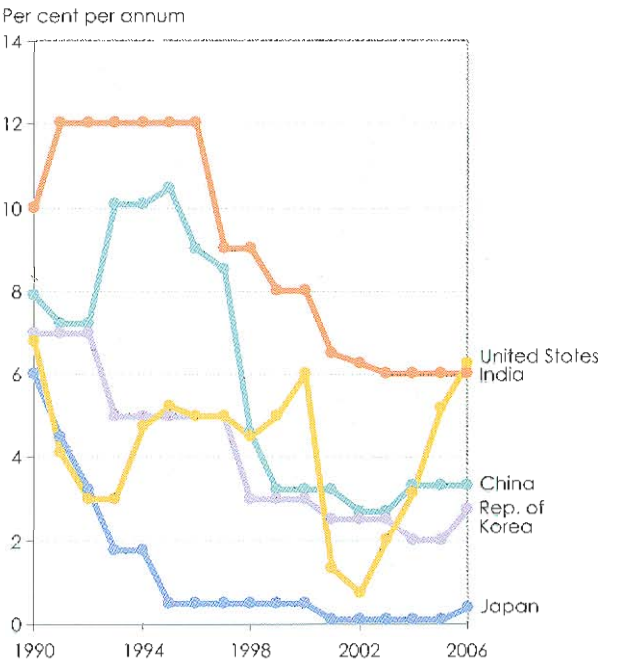


Figure 22.6 Central bank discount rate of selected countries, 1990-2006

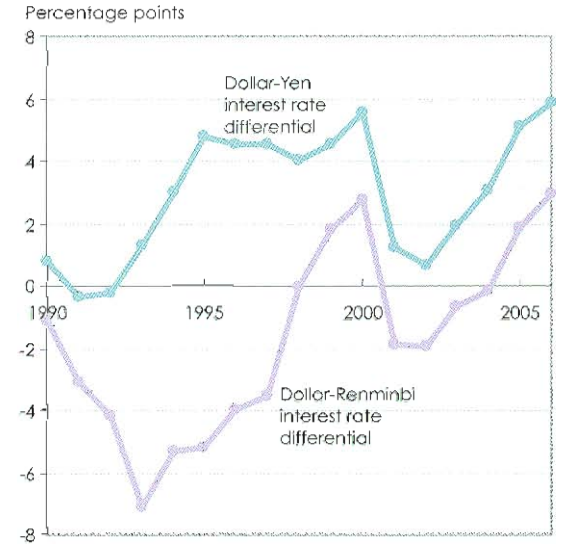


strongly than the discount rate — from 18 per cent in 1998 to 7.4 per cent in 2006, thus making it less costly for the Government to borrow in the short term as well as the long term (IMF, 2007). The Government of Thailand also borrows on "cheaper" interest-rate terms — 10.4 per cent in 1998 and 5.5 per cent in 2006. However, in the case of Pakistan, despite a decrease in the Central Bank's discount rate from 16.5 per cent in 1998 to 9.5 per cent in 2006, the 10-year government bond yield only decreased from 13 per cent in 1997 to 8.5 per cent in 2006. This suggests that, for economies particularly hit by the Asian financial crisis, the term structure turned from downward-sloping in 1998 to almost flat in 2006, making short-term borrowing as "expensive" as long-term borrowing.

For major economies in the Asian and Pacific region, however, bank policy rates have been rising in recent years and they may continue to do so, as monetary policy may further tighten, initially in the United States, followed by Japan, China and the euro area. Higher interest rates in developed economies are likely to affect financing conditions for developing economies by increasing their future borrowing costs. For countries with large debt-to-GDP ratios, and particularly those with relatively large short-term debt positions, such as Papua New Guinea, Indonesia, Turkey, the Philippines and Pakistan, rising interest rates could pose threats to economic expansion.

As depicted in figure 22.7, the short-term United States interest rate has gradually increased in relation to both Japanese and Chinese short-term rates since 2002. Changes in interest rates are likely to translate into changes in exchange rates.

Figure 22.7 Dollar-yen and dollar-yuan interest rate differentials, 1990-2006



Exchange rates

The Asian financial crisis of the late 1990s stimulated the debate on the right currency regime choices in Asia and the Pacific. While IMF has been advocating more flexible exchange rate regimes in general, others argue for more context-specific solutions, such as exchange rates with fixed pegs to either a basket of foreign currencies or a single "hard" currency such as the euro, the Japanese yen or the United States dollar as a transitory regime for economies with emerging financial markets — China and the Philippines, among others. The regimes in between these two extremes are frequently deemed not to be sufficiently credible

Figure 22.8 Central bank discount rate of selected Asian and Pacific countries, 2006

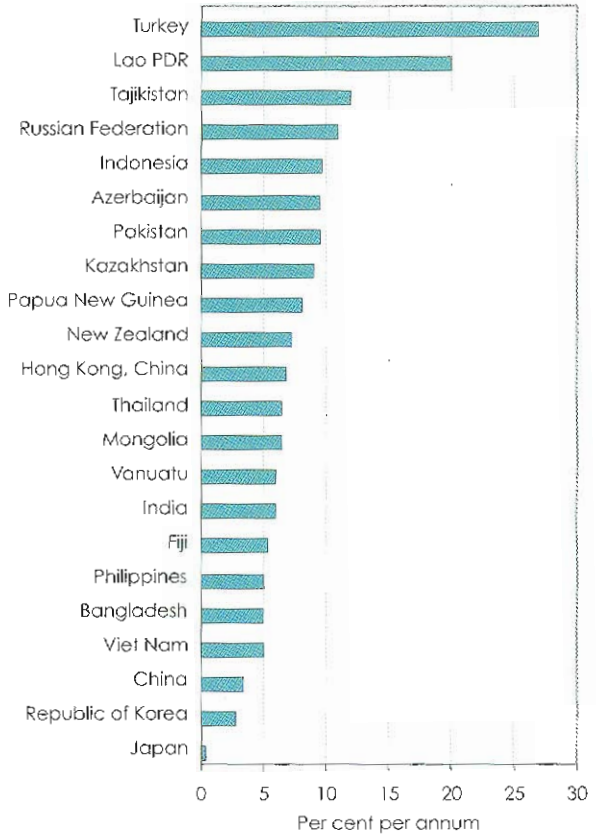
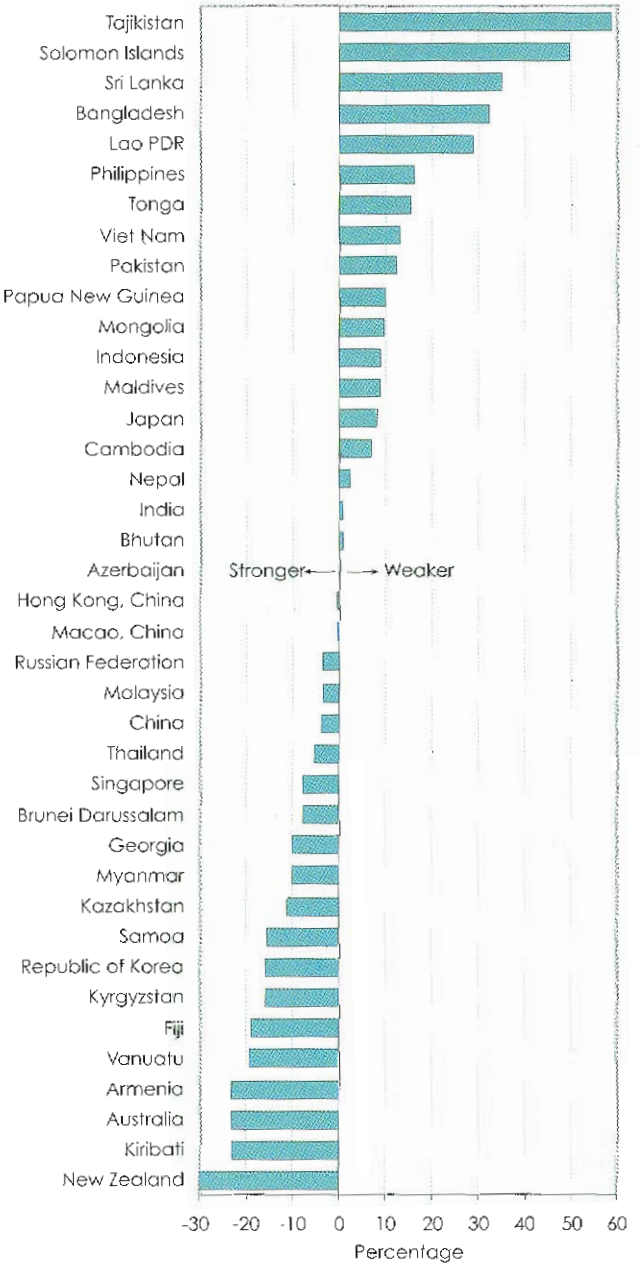


Figure 22.9 Appreciation and depreciation of national currencies against the United States dollar in selected Asian and Pacific countries, 2000-2006



and thus prone to speculative attacks, as was experienced during the 1997 crisis.

Following the crisis, many developing economies in the Asian and Pacific region had to abandon their traditional United States dollar-peg system and allow their exchange rates to float. However, it is important to differentiate between currency regimes announced by the central banks and de facto regimes. Empirical evidence is needed to determine how much flexibility the central banks really allow for their currencies.

In the case of China, for example, the People's Bank of China announced, in July 2005, a revaluation of its currency and a reform of its exchange rate regime after more than a decade of pegging the yuan to the United States dollar at an exchange rate of 8.28. The revaluation put the yuan at 8.11 against the United States dollar, an appreciation of 2.1 per cent. Under the reform, the People's Bank of China announced that the yuan would be pegged to a basket of foreign currencies and would trade within a narrow 0.3 per cent band against this basket of currencies. In 2006, the average exchange rate was 7.97 against the United States dollar. Still, China's major trading partners, notably the United States, complain that the yuan is kept below its "real" market value in order to maintain current account surpluses and the high momentum of the economy.

During the past five years, the majority of Asian currencies have appreciated against the United States dollar due to the current account deficit that the United States economy has been running since 1982 (figure 22.9). The proportion of currencies in the Asian and Pacific region that has appreciated against the United States dollar since 2000 is as high as 68 per cent, similar to Europe (88 per cent) and Africa (50 per cent) but substantially higher than Latin America and the Caribbean (9 per cent).

With the United States current account balance deteriorating further, by US$ 100 billion, to above 6 per cent of GDP in 2006, the United States dollar

risks continuing to depreciate against other major currencies worldwide. As many Asian and Pacific exports go to the United States, the steady appreciation of the major Asian currencies remains a challenge if countries in the region wish to maintain the level of their exports to the United States market while addressing inflationary pressure. This is true in particular given the low proportion of Latin American currencies that have appreciated against the United States dollar since 2000.

Inflation rate (percentage): The rate of increase of the level of prices during a given period. It is the percentage change of the consumer price index between two points of time. *Aggregates:* Averages are calculated using the household consumption expenditure component of the GDP in US dollars as weight. *Source:* International Monetary Fund, World Economic Outlook Database (online database, accessed on April 2007).

Central bank discount rate (% per annum): The rate at which the central bank lends or discounts eligible paper for deposit money to banks, typically reported on an end-of-period basis. *Source:* International Monetary Fund, *International Financial Statistics,* (CD-ROM June 2007).

Average exchange rate (national currency per US dollar): The units of national currency required to purchase one US dollar, usually representing the period average. For some countries or areas, mid-point rates, or the average of buying and selling rates, are used. *Source:* International Monetary Fund, *International Financial Statistics,* (CD-ROM June 2007).

Exchange rate change over period (percentage): The average rate of change in exchange rate for a range-year period. *Source:* Calculated by ESCAP using data from International Monetary Fund, *International Financial Statistics,* (CD-ROM June 2007).

22.1 Inflation and interest rates

	Inflation rate					Central Bank discount rate				
	Percentage					% per annum				
	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006
East and North-East Asia										
China	3.1	17.1	0.4	1.8	1.5	7.9	10.4	3.2	3.3	3.3
DPR Korea										
Hong Kong, China	10.3	9.0	-3.7	0.9	2.0		6.3	8.0	5.8	6.8
Macao, China										
Mongolia		56.8	11.6	12.1	5.0		150.0	8.7	4.4	6.4
Republic of Korea	8.6	4.5	2.3	2.8	2.2	7.0	5.0	3.0	2.0	2.8
South-East Asia										
Brunei Darussalam	2.1	6.0	1.2	1.1	0.5					
Cambodia	141.8	9.9	-0.8	5.8	4.8					
Indonesia	7.8	9.4	3.8	10.5	13.1	18.8	14.0	14.5	12.8	9.8
Lao PDR	-26.3	19.1	23.2	7.2	6.8		32.1	35.2	20.0	20.0
Malaysia	3.0	3.2	1.6	3.0	3.6					
Myanmar	21.9	28.9	-1.7	10.1	26.3		12.5	10.0	10.0	
Philippines	13.2	8.5	4.0	7.6	6.2	14.0	10.8	13.8	5.7	5.0
Singapore	3.5	1.7	1.3	0.5	1.0					
Thailand	5.9	5.8	1.6	4.5	4.6	12.0	10.5	4.0	5.5	6.5
Timor-Leste			63.6	1.8	4.1					
Viet Nam	36.0	16.9	-1.6	8.3	7.5			6.0	5.0	5.0
South and South-West Asia										
Afghanistan				13.2	12.3					
Bangladesh	10.5	10.1	2.5	7.0	6.3	9.8	6.0	7.0	5.0	5.0
Bhutan	10.0	9.5	4.0	5.3	5.2					
India	9.0	10.2	4.0	4.2	6.1	10.0	12.0	8.0	6.0	6.0
Iran (Islamic Rep. of)	9.0	49.4	12.6	12.1	14.6					
Maldives	15.5	5.5	-1.2	3.3	3.5					
Nepal	7.4	7.2	2.4	4.5	8.0	11.0	11.0	7.5	6.0	
Pakistan	9.1	13.0	3.6	9.3	7.9	10.0	17.0	13.0	9.0	9.5
Sri Lanka	21.5	7.7	1.5	10.6	9.5	15.0	17.0	25.0	15.0	
Turkey	60.4	89.2	54.9	8.2	9.6	45.0	50.0	60.0	23.0	27.0
North and Central Asia										
Armenia		176.7	-0.8	0.6	2.9					
Azerbaijan		411.8	1.8	9.7	8.4		80.0	10.0	9.0	9.5
Georgia		162.7	4.0	8.3	9.2					
Kazakhstan		176.3	13.3	7.6	8.6		52.5	14.0	8.0	9.0
Kyrgyzstan		43.5	18.7	4.3	5.6					
Russian Federation		198.0	20.8	12.7	9.7		160.0	25.0	12.0	11.0
Tajikistan		612.5	32.9	7.3	10.1			20.6	9.0	12.0
Turkmenistan		1 005.3	8.0	10.7	8.2					
Uzbekistan		304.6	49.5	21.0	19.5					
Pacific										
American Samoa										
Cook Islands										
Fiji	8.2	0.3	1.1	2.4	3.4	8.0	6.0	8.0	2.8	5.3
French Polynesia										
Guam										
Kiribati	4.0	4.1	0.9	-0.5	-0.2					
Marshall Islands										
Micronesia (F.S.)										
Nauru										
New Caledonia										
Niue										
Northern Mariana Is.										
Palau										
Papua New Guinea	7.0	17.3	15.6	1.7	3.5	9.3	18.0	9.8	9.7	8.1
Samoa	8.5	-2.9	-0.2	7.8	3.2					
Solomon Islands	8.7	9.8	6.9	7.3	8.0					
Tonga	5.6	-0.5	5.3	9.7	6.8					
Tuvalu										
Vanuatu	4.8	2.2	2.5	1.2	1.6			7.0	6.3	6.0
ESCAP Developed Economies										
Australia	7.3	4.6	4.5	2.7	3.5					
Japan	3.1	-0.1	-0.4	-0.6	0.2	6.0	0.5	0.5	0.1	0.4
New Zealand	6.1	3.7	2.6	3.0	3.4	13.3	9.8	6.5	7.3	7.3
ESCAP	7.1	15.6	3.0	2.8	3.5					
LLDC		230.3	19.7	9.2	9.6					
LDC	15.5	10.1	3.4	7.3	7.1					
SIDS	4.1	2.5	2.6	0.8	1.3					
ASEAN	9.0	7.3	2.5	6.8	7.8					
SAARC	9.4	10.6	3.7	5.5	6.6					
Central Asia		264.8	20.7	9.1	9.5					
Low-income	10.2	18.0	4.6	5.7	6.7					
Middle-income		64.0	10.4	6.4	6.4					
High-income	4.1	0.8	0.1	0.3	1.0					
Africa	14.7	35.9	12.7	8.4	8.2					
Latin America & Carib.	1 663.4	38.6	7.5	6.0	5.1					
North America	5.4	2.8	3.4	3.3	3.1					
Europe	10.1	6.2	2.8	2.3	2.3					
Other Asia-Pacific	7.3	5.8	0.8	3.0	3.6					
World										

22.2 Exchange rates

	Average exchange rate National currency per US Dollar					Exchange rate change over period Percentage		
	1990	1995	2000	2005	2006	90-95	95-00	00-06
East and North-East Asia								
China	4.78	8.35	8.28	8.19	7.97	74.6	-0.9	-3.7
DPR Korea								
Hong Kong, China	7.79	7.74	7.79	7.78	7.77	-0.7	0.7	-0.3
Macao, China	8.02	7.97	8.03	8.01	8.00	-0.7	0.7	-0.3
Mongolia		448.61	1 076.67	1 205.22	1 179.70	5 500.7	140.0	9.6
Republic of Korea	707.76	771.27	1 130.96	1 024.12	954.79	9.0	46.6	-15.6
South-East Asia								
Brunei Darussalam	1.81	1.42	1.72	1.66	1.59	-21.8	21.6	-7.8
Cambodia	426.25	2 450.83	3 840.75	4 092.50	4 103.25	475.0	56.7	6.8
Indonesia	1 842.81	2 248.61	8 421.78	9 704.74	9 159.32	22.0	274.5	8.8
Lao PDR	707.75	804.69	7 887.64	10 655.20	10 159.90	13.7	880.2	28.8
Malaysia	2.70	2.50	3.80	3.79	3.67	-7.4	51.7	-3.5
Myanmar	6.28	5.61	6.43	5.76	5.78	-10.6	14.5	-10.0
Philippines	24.31	25.71	44.19	55.09	51.31	5.8	71.9	16.1
Singapore	1.81	1.42	1.72	1.66	1.59	-21.8	21.6	-7.8
Thailand	25.59	24.92	40.11	40.22	37.88	-2.6	61.0	-5.6
Timor-Leste								
Viet Nam	6 482.80	11 038.30	14 167.70	15 858.90	15 994.30	70.3	28.4	12.9
South and South-West Asia								
Afghanistan	0.05	0.83	61.63	49.49		1 546.9	7 295.5	
Bangladesh	34.57	40.28	52.14	64.33	68.93	16.5	29.5	32.2
Bhutan	17.51	32.43	44.94	44.10	45.31	85.2	38.6	0.8
India	17.50	32.43	44.94	44.10	45.31	85.3	38.6	0.8
Iran (Islamic Rep. of)	68.10	1 747.93	1 764.43	8 963.96	9 170.94	2 466.9	0.9	419.8
Maldives	9.55	11.77	11.77	12.80	12.80	23.2	0.0	8.8
Nepal	29.37	51.89	71.09	71.37	72.76	76.7	37.0	2.3
Pakistan	21.71	31.64	53.65	59.51	60.27	45.8	69.5	12.3
Sri Lanka	40.06	51.25	77.01	100.50	103.91	27.9	50.2	34.9
Turkey	0.00	0.05	0.63	1.34	1.43	1 657.4	1 263.8	128.5
North and Central Asia								
Armenia		405.91	539.53	457.69	416.04		32.9	-22.9
Azerbaijan		0.88	0.89	0.95	0.89		1.4	-0.2
Georgia			1.98	1.81	1.78		56.8	-9.9
Kazakhstan		60.95	142.13	132.88	126.09		133.2	-11.3
Kyrgyzstan		10.82	47.70	41.01	40.15		340.8	-15.8
Russian Federation		4.56	28.13	28.28	27.19		517.0	-3.3
Tajikistan		0.12	2.08	3.12	3.30		1 589.9	58.9
Turkmenistan		110.92	5 200.00				4 588.2	
Uzbekistan		29.78	236.61				694.7	
Pacific								
American Samoa								
Cook Islands								
Fiji	1.48	1.41	2.13	1.69	1.73	-5.0	51.4	-18.7
French Polynesia								
Guam								
Kiribati	1.28	1.35	1.72	1.31	1.33	5.3	27.9	-23.0
Marshall Islands								
Micronesia (F.S.)	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0
Nauru								
New Caledonia								
Niue								
Northern Mariana Is.								
Palau								
Papua New Guinea	0.96	1.28	2.78	3.10	3.06	34.0	117.4	9.9
Samoa	2.31	2.47	3.29	2.71	2.78	7.1	32.9	-15.4
Solomon Islands	2.53	3.41	5.09	7.53	7.61	34.7	49.4	49.5
Tonga	1.28	1.27	1.76	1.94	2.03	-0.7	38.4	15.2
Tuvalu								
Vanuatu	117.06	112.11	137.64	109.25	111.22	-4.2	22.8	-19.2
ESCAP Developed Economies								
Australia	1.28	1.35	1.72	1.31	1.33	5.3	27.9	-23.0
Japan	144.79	94.06	107.77	110.22	116.30	-35.0	14.6	7.9
New Zealand	1.68	1.52	2.20	1.42	1.54	-9.1	44.4	-29.9
ESCAP								
LLDC								
LDC								
SIDS								
ASEAN								
SAARC								
Central Asia								
Low-income								
Middle-income								
High-income								
Africa								
Latin America & Carib.								
North America								
Europe								
Other Asia-Pacific								
World								

23. Tourism

Tourism has become one of the largest and fastest growing industries, not only in Asia and the Pacific but also in the global economy.

In recent years, the tourism industry has faced terrorism, natural disasters and health scares. Despite these challenges, international tourist arrivals worldwide exceeded 800 million in 2005, a new record and almost twice as many as in 1990. Over the same period, the number of arrivals in Asia and the Pacific doubled, from 85 million to 198 million.

Almost half — 48 per cent — of all tourists globally in 2005 had a European destination. The share of Asia and the Pacific in the global total was 25 per cent in the same year, significantly up from 19 per cent in 1990.

As shown in figure 23.1, China, Turkey, the Russian Federation, Malaysia and Hong Kong, China, received the highest number of international tourists within Asia and the Pacific in 2005. An estimated 47 million international tourists arrived in China in that year, more than twice as many as received by Turkey, the second largest recipient of tourists in the region. At the global level, China is the fourth largest recipient of international tourists after France, Spain and the United States.

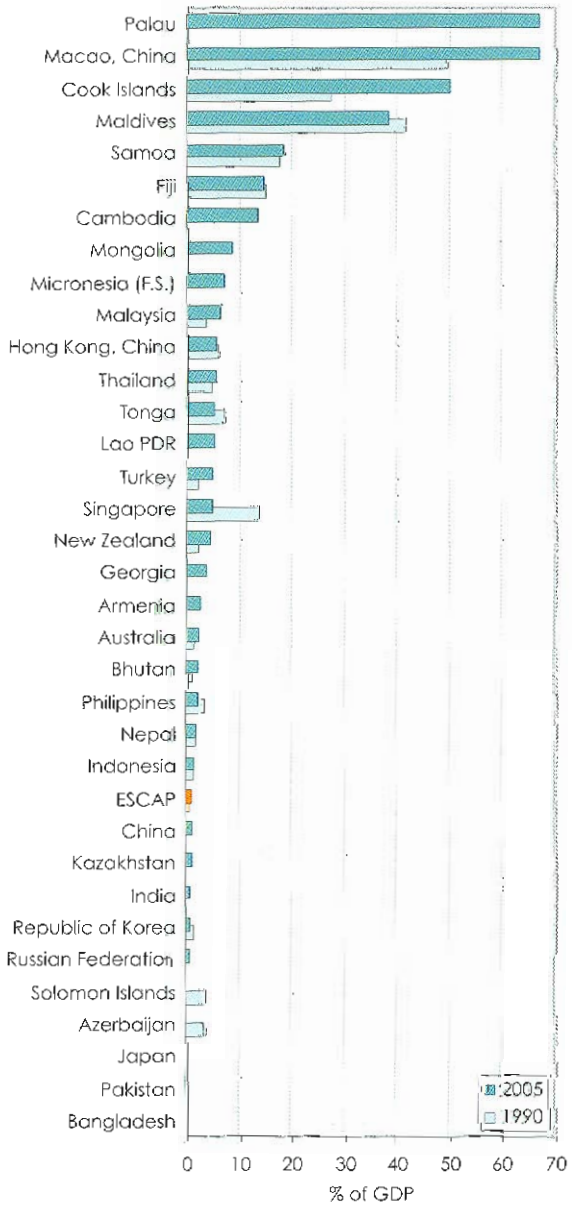
Singapore, as well as Hong Kong, China, and Macao, China, attract very high numbers of arrivals, considering their small size.

Figure 23.1 International tourist arrivals in Asia and the Pacific, 1990 and 2005

The countries with the highest absolute number of international tourist arrivals have not necessarily had the highest growth rates in the number of arrivals during the last decade, however. Tourist arrivals in Turkey and China, for example, increased annually by 11 and 8 per cent, respectively, between 1995 and 2005, but Armenia and Azerbaijan, both landlocked developing countries, as well as Cambodia and Georgia experienced the highest growth in tourist arrivals — at least 20 per cent annually between 1995 and 2005.

Tourism receipts are important for many economies in Asia and the Pacific. Among the top 10 countries with the highest international tourism receipts as a percentage of GDP, half are small island developing States. In the Cook Islands, for

Figure 23.2 International tourism receipts as a percentage of GDP in Asian and Pacific countries/areas, 1990 and 2005



example, international tourism receipts accounted for half of GDP. In Maldives and Samoa, both least developed countries, tourism receipts amounted to 38.2 and 18.5 per cent of GDP, respectively, in 2005.

Some least developed countries including Cambodia and the Lao People's Democratic Republic have also benefited from spending by international visitors. In 2005, international tourism receipts accounted for 13.6 per cent of GDP in Cambodia and over 5 per cent in the Lao People's Democratic Republic, in contrast to only 1.6 and 2.9 per cent, respectively, in 1995.

The Asian and Pacific region has shown remarkable dynamism in the tourism sector over the last decade, despite having faced several deterrents to tourist arrivals and spending. The SARS epidemic in 2003 impacted North-East and South-East Asia, where all countries posted a decline in tourist visits. The following year, the Asian tsunami significantly affected tourist destinations in India, Indonesia, Maldives, Sri Lanka and Thailand.

In Thailand, for example, international tourism receipts decreased from over 6 per cent of GDP in 2004 to 5.7 per cent by 2005. In Indonesia and Sri Lanka, the percentage of foreign visitors' expenditure as part of GDP also decreased due to the effects of the tsunami. However, the most affected country was Maldives, where tourism receipts fell from 51 per cent of GDP in 2000 to 38 per cent in 2005.

The tourism sectors in the countries affected by SARS and the tsunami have since recovered from these incidents. Citizens of middle-income countries in Asia and the Pacific are contributing increasingly to tourism in the region.

International tourist arrivals (thousands): The number of inbound non-resident travelers received by any destination in a country. Missing data have been imputed. *Aggregates:* Sum of individual country values. *Source:* World Tourism Organization, Tourism statistics, (online database, accessed on September 2007).

International tourism receipts (% of GDP): The receipts earned by a destination country from inbound tourism resulting from expenditure made by visitors from abroad, on lodging, food and drinks, fuel, transport in the country, entertainment, shopping, etc., expressed as a percentage of GDP. *Aggregates:* Averages are calculated using GDP in US dollars as weight. *Source:* World Tourism Organization, Tourism statistics, (online database, accessed on September 2007).

Outbound tourism expenditure (% of GDP): The expenditure that the residents of the country spend when abroad. Data are obtained from the balance of payments of the destination countries, expressed as a percentage of GDP. *Aggregates:* Averages are calculated using GDP in US dollars as weight. *Source:* World Tourism Organization, Tourism statistics, (online database, accessed on September 2007).

23.1 Tourism

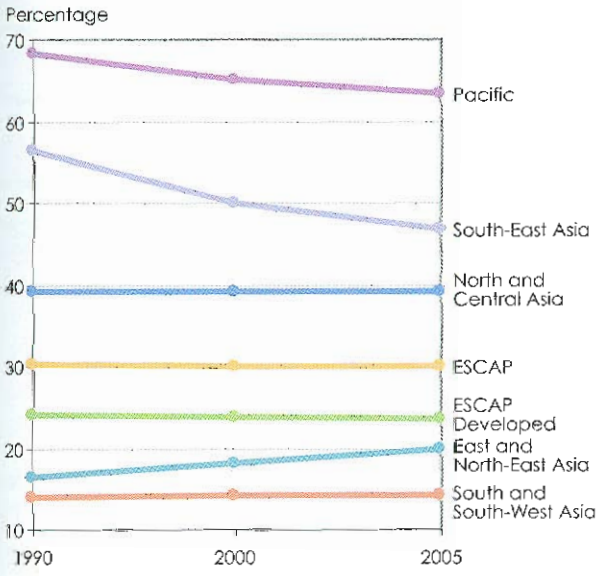
	International tourist arrivals				International tourism receipt				Outbound tourism expenditure		
	Thousands				% of GDP				% of GDP		
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2003
East and North-East Asia											
China	10 484	20 034	31 229	46 809	0.55	1.15	1.36	1.29	0.12	0.49	0.92
DPR Korea	115				0.20						
Hong Kong, China			8 814	14 773	6.17	5.38	3.50	5.79	10.06		7.23
Macao, China	2 513	4 202	5 197	9 014	49.26	44.67	52.58	66.85	1.30		3.85
Mongolia	147	108	137		0.40	1.71	3.80	8.57	0.08	1.63	8.40
Republic of Korea	2 959	3 753	5 322	6 022	1.35	1.00	1.34	0.72	1.20	1.23	1.36
South-East Asia											
Brunei Darussalam	377	498	984								
Cambodia	17	220	466	1 422		1.60	8.29	13.56	0.12	0.24	0.83
Indonesia	2 178	4 324	5 064	5 002	1.67	2.35	3.01	1.61	0.66	0.98	1.31
Lao PDR	14	60	191	672	0.35	2.87	6.58	5.12	0.12	1.69	
Malaysia	7 446	7 469	10 222	16 431	3.79	4.47	5.55	6.53	3.29	2.60	2.74
Myanmar	21	117	208		0.17	1.95	2.23		0.31	0.23	0.32
Philippines	1 025	1 760	1 992	2 623	2.95	1.53	2.84	2.17	0.25	0.57	1.51
Singapore	4 842	6 422	6 917	7 080	13.38	9.11	5.55	4.92	5.13	5.52	5.92
Thailand	5 299	6 952	9 579	11 567	5.07	4.78	6.10	5.74	1.00	2.54	2.45
Timor-Leste											
Viet Nam	250	1 351	2 140	3 468	1.31						
South and South-West Asia											
Afghanistan											
Bangladesh	115	156	199		0.03	0.06	0.10	0.11	0.25	0.56	0.29
Bhutan	2	5	8		0.72	1.70	2.24	2.27			
India	1 707	2 124	2 649	3 915	0.46	0.70	0.74	0.91	0.12	0.27	0.60
Iran (Islamic Rep. of)	154	489	1 342		0.07	0.06	0.45		0.38	0.22	3.07
Maldives	195	315	467		41.39	52.88	51.42	38.24	6.98	7.77	6.64
Nepal	255	363	464		1.82	4.19	2.96	1.77	1.28	3.22	1.35
Pakistan	424	378	557		0.27	0.14	0.10	0.14	0.77	0.55	0.95
Sri Lanka	298	403	400		1.61	1.69	1.48		0.90	1.39	1.50
Turkey	4 799	7 083	9 586	20 273	2.14	2.93	3.83	5.01	0.35	0.54	0.88
North and Central Asia											
Armenia		12	45	319		0.08	1.99	2.75		0.23	2.39
Azerbaijan		93	681	1 177	3.50	2.27	1.19	0.45		4.74	1.53
Georgia		85	387	548			3.17	3.73			3.26
Kazakhstan			1 471			0.59	1.95	1.20		1.38	2.17
Kyrgyzstan		36	59	315		0.34	1.09			0.47	0.88
Russian Federation				19 940		1.08	1.32	0.72		2.91	2.99
Tajikistan			4								0.13
Turkmenistan		218									
Uzbekistan		92	302				0.20				
Pacific											
American Samoa	26	34	44								
Cook Islands	34	48	73		27.34	30.05	44.56	50.23			
Fiji	279	318	294		15.11	14.62	10.79	14.51	2.39	3.22	2.73
French Polynesia	132	172	252		5.84						
Guam	780	1 362	1 287	1 228							
Kiribati	3	4	5		3.52	4.36	5.89		10.56		
Marshall Islands	5	6	5			2.85	4.05				
Micronesia (F.S.)			21				6.91	7.17			
Nauru											
New Caledonia	87	86	110		3.72	2.98	3.51				
Niue	1	2	2								
Northern Mariana Is.	426	669	517								
Palau	33	53	58				45.21	67.05	2.60		
Papua New Guinea	41	42	58		1.25	0.52	0.54		1.52	1.20	
Samoa	48	68	88		17.85	17.47	17.76	18.48	1.79	1.50	
Solomon Islands	9	12			3.36	4.39	1.18	0.53	5.29	3.56	1.39
Tonga	21	29	35		7.27	6.42	4.72	5.13	0.81		
Tuvalu	1	1	1								
Vanuatu	35	44	58		25.50	18.51	22.90		0.65	2.06	4.34
ESCAP Developed Economies											
Australia	2 215	3 726	4 530	5 020	1.33	2.12	2.32	2.29	1.42	1.19	1.34
Japan	3 236	3 345	4 757	6 728	0.12	0.06	0.07	0.27	0.95	0.70	0.68
New Zealand	976	1 409	1 787	2 365	2.35	3.78	4.30	4.43	2.18	2.10	2.21
ESCAP	85 313	111 530	142 072	198 215	0.83	0.88	1.02	1.31	1.02	0.93	1.20
LLDC	2 344	2 462	3 580	6 735			0.02				
LDC	715	1 365	2 167	3 793	0.58	1.29	1.78	1.88	0.40	0.80	0.48
SIDS	7 019	9 708	10 304	10 790	14.68	9.46	5.79		4.74	5.22	
ASEAN	21 469	29 173	37 763	49 491	4.14	4.04	4.53	3.94	1.50	2.13	2.42
SAARC	2 996	3 744	4 744	6 411	0.46	0.65	0.70	0.79	0.24	0.40	0.66
Central Asia	2 011	2 011	3 167	5 916			1.36				
Low-income	3 247	5 288	7 780	12 376	0.43	0.62	0.70	0.87	0.24	0.38	0.64
Middle-income	55 099	72 402	94 259	132 226	1.67	1.88	2.16	1.92	0.49	1.30	1.50
High-income	26 931	33 789	39 957	53 526	0.66	0.58	0.61	0.98	1.25	0.85	1.11
Africa	18 873	23 592	33 416	44 705	1.45	2.15	2.54		0.87	3.12	
Latin America & Carib.	37 953	47 534	56 268	64 354	1.64	1.48	1.75	1.80	1.20	0.98	1.04
North America	55 007	60 809	71 197	68 286	1.64	1.48	1.75	1.80	0.76	0.70	0.60
Europe	270 657	289 084	358 486	387 575	1.80	2.01	2.36	2.19	1.73	1.99	2.18
Other Asia-Pacific	12 508	17 115	25 865	36 251	1.83	2.29	2.07	2.07	3.22	2.91	
World	439 000	540 000	687 000	806 000					1.22	1.38	1.42

24. Protected areas

Just 30 per cent of the land area in Asia and the Pacific is covered by forests, a proportion unchanged from the early 1990s. Afforestation in just a few countries is compensating for the large number of countries where the area remaining under forest is decreasing — sometimes rapidly.

The proportion of the land area of Asia and the Pacific covered by forest is marginally lower than that of North America and Europe (about one third) and much lower than in Latin America and Caribbean, where 46 per cent of land is forested.

Figure 24.1 Change in forest land area as a percentage of total land area in selected Asian and Pacific subregions and country groupings, 1990, 2000 and 2005

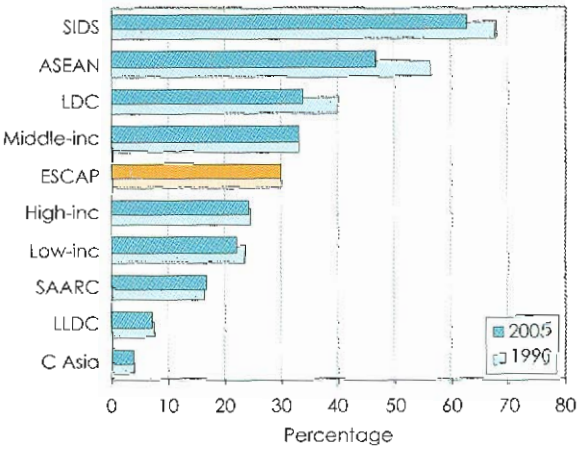


As illustrated in figure 24.1 and 24.2, the land area under forests declined in most groups of countries within Asia and the Pacific between 1990 and 2005. The decline was steepest in ASEAN countries, where forests covered 56 per cent of the land area in 1990 but just 47 per cent in 2005.

The land area covered by forests decreased by 16 percentage points in Indonesia, 11 percentage points in the Philippines, 14 percentage points in Cambodia and 10 percentage points in Myanmar (figure 24.2); because of its larger size, the forest acreage loss in Myanmar was actually larger than in Cambodia.

Most deforestation across ASEAN countries is due to illegal logging, bush and forest fires, and conversion of forest land into roads, mines and settlements. Cambodia, for example, suffers from illegal logging and the misuse of forest concessions, despite a moratorium on logging being in place

Figure 24.2 Proportion of land area covered by forest in selected groups of Asian and Pacific countries, 1990 and 2005



since 2002. The fact that many rural households do not hold land titles exacerbates this situation. Another threat to forest coverage is the population's persisting dependence on fuel wood — over 80 per cent by some estimates.

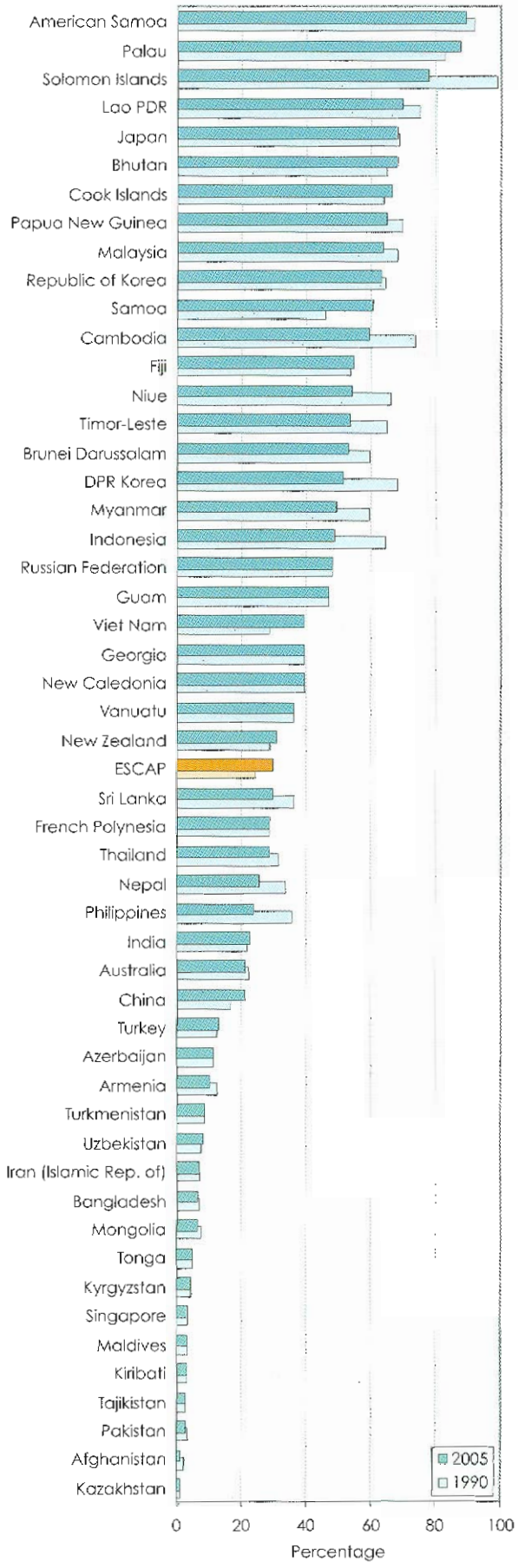
Viet Nam, on the other hand, is the only country within ASEAN that has turned the trend around as a result of reduced illegal logging and a decline in forest fires. Plantation forests as well as natural forests increased in size, according to the Viet Nam 2005 Millennium Development Goals report. While tree plantations are included in forest land coverage, they do not compensate for the decline in biodiversity when they are created at the cost of natural forests.

Small island developing States have the highest proportion of land under forests in Asia and the Pacific, at 63 per cent in 2005, despite a drop of 5 percentage points between 1990 and 2005. Central Asian countries, on the other hand, have the lowest proportion of land under forests in Asia and the Pacific, at close to 4 per cent, a percentage that has stayed constant over the last 15 years or so.

Low- and high-income economies have a similar share of forest area, at 22 and 24 per cent respectively, while middle-income economies have a share of about 33 per cent of forest area in 2005. Middle-income economies have experienced a slight increase in the share of forest land area between 1990 and 2005, whereas low- and high-income economies have followed a declining trend during the same period.

An important reason why the proportion of the Asia and Pacific land area under forest has remained fairly constant despite declines in most countries is

Figure 24.3 Forest land area as percentage of total land area in Asia and the Pacific, 1990 and 2005

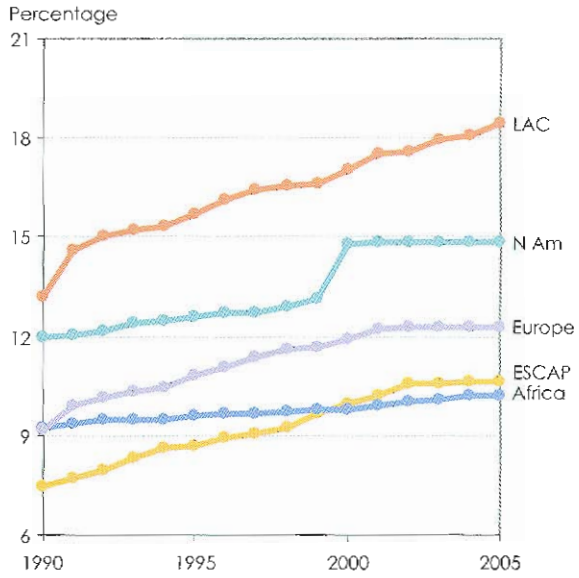


that China expanded its forest land area by 4.4 percentage points between 1990 and 2005 by active afforestation.

Protected areas

The proportion of the surface area designated as protected increased everywhere in the world between 1990 and 2005 (figure 24.4). As protected areas are designated through national legislations and policies, the level protection can vary significantly.

Figure 24.4 Proportion of protected areas in the regions of the world, 1990-2005



In Asia and the Pacific, the increase was 3 percentage points, to 11 per cent in 2005. This proportion is similar to that of Africa, 10 per cent, in the same year, but behind the 12 to 18 per cent range of Latin America and the Caribbean, North America and Europe.

Also within Asia and the Pacific, the proportion of the surface area designated as protected increased in all countries and groups thereof between 1990 and 2005 (figure 24.5). The protected areas ratio remains low in some of the most vulnerable groups of countries, including least developed countries, landlocked developing countries and small island developing States. Least developed countries and landlocked developing countries largely overlap with low-income countries; thus, it is not surprising that this characteristic is shared with the latter group as well.

Apart from country-level efforts to maintain environmental resources and biodiversity, multilateral projects, such as the Greater Mekong Subregion Biodiversity Conservation Corridors Initiative, have had an important role of maintaining and expanding protected areas.

Figure 24.5 Proportion of protected areas in selected groups of Asian and Pacific countries, 1995-2005

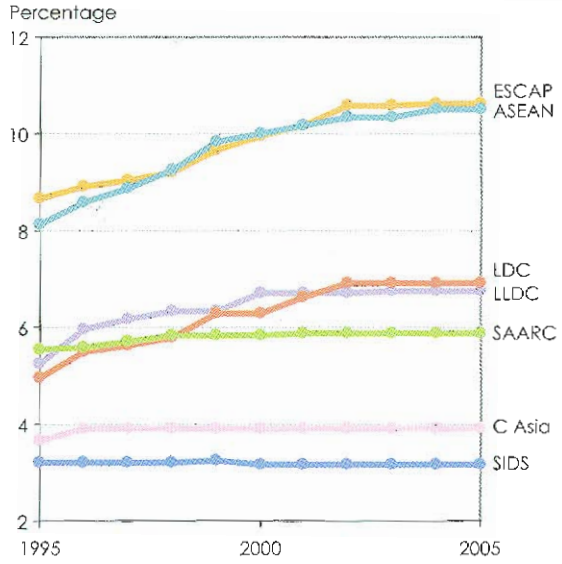
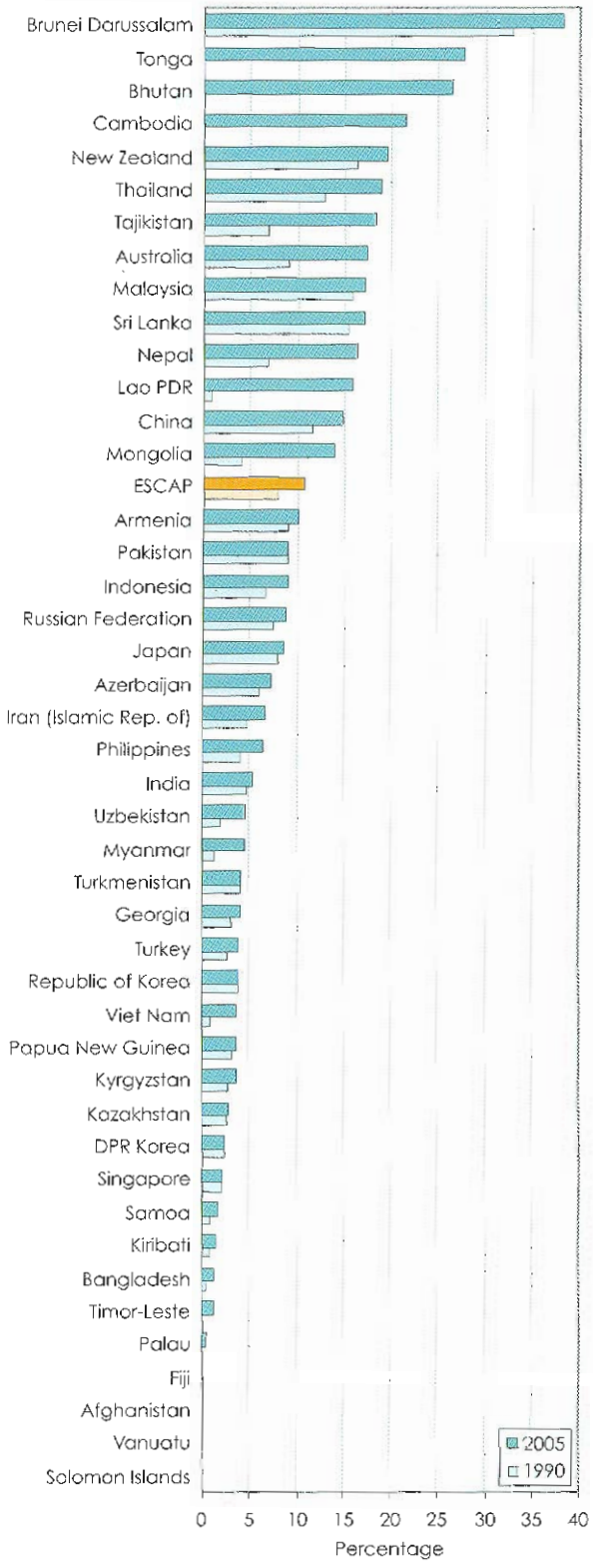


Figure 24.6 Proportion of protected areas in selected Asian and Pacific countries, 1990 and 2005



Forest area (% of land area): Land area covered by forest, expressed as a percentage of total land area. Forest land spans more than a half a hectare with trees higher than five metres and a canopy cover of more than ten percent, or trees able to reach these thresholds in situ. Total land area excludes the area of inland water bodies. *Aggregates:* Averages are calculated using total land area as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed in September 2007).

Protected area (% of surface area): An area of land or sea dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. Expressed as a percentage of the total surface area of the country. The total surface area of the country includes terrestrial area plus any territorial sea area up to 12 nautical miles. *Aggregates:* Averages are calculated using total surface area as weight. *Source:* United Nations Millennium Development Goals Indicators, (online database, accessed in September 2007).

24.1 Forests and protected areas

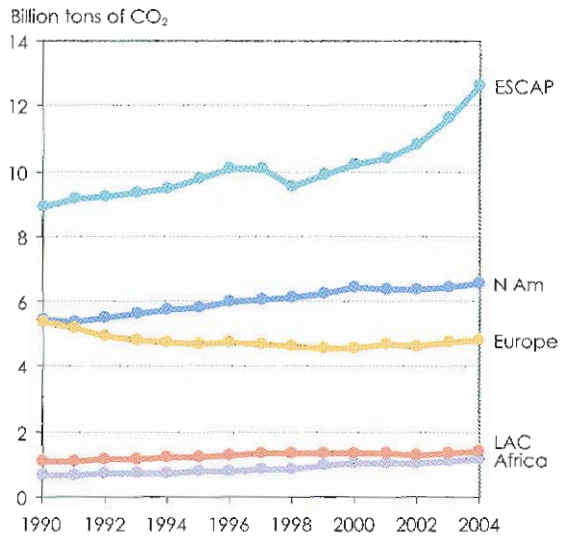
	Forest area			Protected area			
	% of land area			% of surface area			
	1990	2000	2005	1990	1995	2000	2005
East and North-East Asia							
China	16.8	19.0	21.2	11.6	12.2	13.7	14.9
DPR Korea	68.1	56.6	51.4	2.4	2.4	2.4	2.4
Hong Kong, China							
Macao, China							
Mongolia	7.3	6.8	6.5	4.1	8.7	13.9	13.9
Republic of Korea	64.5	63.8	63.5	3.8	3.9	3.9	3.9
South-East Asia							
Brunei Darussalam	59.4	54.6	52.8	32.9	38.3	38.3	38.3
Cambodia	73.3	65.4	59.2	0.1	16.5	21.6	21.6
Indonesia	64.3	54.0	48.8	6.6	7.2	8.8	9.1
Lao PDR	75.0	71.6	69.9	0.9	14.4	16.0	16.0
Malaysia	68.1	65.7	63.6	15.9	16.7	17.2	17.3
Myanmar	59.6	52.5	49.0	1.2	1.3	2.6	4.6
Philippines	35.5	26.7	24.0	4.0	4.3	6.4	6.5
Singapore	3.4	3.4	3.4	2.1	2.1	2.1	2.2
Thailand	31.2	29.0	28.4	13.0	15.1	18.8	19.0
Timor-Leste	65.0	57.4	53.7			1.2	1.2
Viet Nam	28.8	36.0	39.7	0.9	2.2	3.1	3.6
South and South-West Asia							
Afghanistan	2.0	1.6	1.3	0.3	0.3	0.3	0.3
Bangladesh	6.8	6.8	6.7	0.4	0.4	1.2	1.3
Bhutan	64.6	66.8	68.0		24.5	26.4	26.4
India	21.5	22.7	22.8	4.8	5.2	5.4	5.4
Iran (Islamic Rep. of)	6.8	6.8	6.8	4.7	5.1	5.4	6.6
Maldives	3.0	3.0	3.0				
Nepal	33.7	27.3	25.4	6.8	12.6	16.0	16.3
Pakistan	3.3	2.7	2.5	9.0	9.0	9.1	9.1
Sri Lanka	36.4	32.2	29.9	15.5	15.9	17.1	17.2
Turkey	12.6	13.1	13.2	2.6	3.9	3.9	3.9
North and Central Asia							
Armenia	12.3	10.8	10.0	9.1	9.1	9.1	10.0
Azerbaijan	11.3	11.3	11.3	6.1	6.6	6.6	7.3
Georgia	39.7	39.7	39.7	3.0	3.0	4.0	4.0
Kazakhstan	1.3	1.2	1.2	2.5	2.6	2.9	2.9
Kyrgyzstan	4.4	4.5	4.5	2.9	3.4	3.6	3.6
Russian Federation	47.9	47.9	47.9	7.5	8.6	8.8	8.8
Tajikistan	2.9	2.9	2.9	6.8	18.2	18.2	18.2
Turkmenistan	8.8	8.8	8.8	4.0	4.0	4.1	4.1
Uzbekistan	7.4	7.8	8.0	2.0	4.6	4.6	4.6
Pacific							
American Samoa	91.9	90.3	89.4				
Cook Islands	63.9	66.5	66.5				
Fiji	53.6	54.7	54.7	0.2	0.2	0.3	0.3
French Polynesia	28.7	28.7	28.7				
Guam	47.1	47.1	47.1				
Kiribati	3.0	3.0	3.0	0.8	0.8	1.5	1.5
Marshall Islands							
Micronesia (F.S.)							
Nauru							
New Caledonia	39.2	39.2	39.2				
Niue	66.2	58.1	54.2				
Northern Mariana Is.							
Palau	82.9	86.1	87.6			0.3	0.4
Papua New Guinea	69.6	66.5	65.0	3.3	3.6	3.6	3.6
Samoa	45.9	60.4	60.4	0.8	0.9	1.6	1.8
Solomon Islands	98.9	84.7	77.6		0.1	0.1	0.2
Tonga	5.0	5.0	5.0	0.1	27.6	27.6	27.8
Tuvalu							
Vanuatu	36.1	36.1	36.1	0.1	0.2	0.2	0.2
ESCAP Developed Economies							
Australia	21.9	21.4	21.3	9.1	11.1	15.0	17.5
Japan	68.4	68.2	68.2	8.0	8.5	8.5	8.6
New Zealand	28.8	30.7	31.0	16.3	16.4	17.9	19.6
ESCAP	30.1	29.9	30.0	7.5	8.7	9.9	10.6
LLDCs	7.7	7.3	7.1	3.0	5.2	6.7	6.7
LDCs	40.0	36.0	33.8	1.1	5.0	6.3	6.9
SIDSs	68.0	64.7	63.0	2.9	3.2	3.2	3.2
ASEAN	56.3	49.9	46.7	6.1	8.1	10.0	10.5
SAARC	16.5	16.9	16.8	5.0	5.6	5.9	5.9
CIS Asia	3.9	3.9	3.9	2.9	3.7	3.9	3.9
Low-income	23.5	22.8	22.3	3.8	5.9	7.1	7.3
Middle-income	33.2	33.1	33.4	8.0	8.8	9.6	10.0
High-income	24.7	24.3	24.2	9.2	11.1	14.7	17.0
Africa	23.6	22.1	21.5	9.3	9.6	9.8	10.2
Latin America & Carib.	49.6	47.3	46.2	13.2	15.7	17.0	18.4
North America	32.5	32.6	32.6	12.0	12.6	14.8	14.9
Europe	31.7	33.2	33.9	9.2	10.8	11.9	12.3
Other Asia-Pacific	1.4	1.4	1.4				25.7
World							

25. Air and water pollution

Although steadily increasing, average per capita CO_2 emissions in Asia and the Pacific are just one sixth of what they are in North America and about 40 per cent of the European level.

Compared with other developing regions, they are more than twice as high as in Africa and one quarter higher than in Latin America and the Caribbean (figure 25.1).

Figure 25.1 CO_2 emissions in the regions of the world, 1990-2004



Human activities that contribute to global warming are usually linked to the emission of greenhouse gases, which captures and confines outgoing radiation to earth. The most prominent greenhouse gases are CO_2, nitrous oxide (N_2O), methane (CH_4) and three fluorinated gases: haloalkanes (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SO_6). The largest share of greenhouse gas emissions — over 80 per cent — comes from CO_2, which is produced mostly through fossil fuel combustion.

High-income countries in Asia and the Pacific emit the highest level of CO_2 per capita, at 10.3 tons, followed by middle-income countries, at 4.1 tons, which is twice the 1990 level (figure 25.3).

Least developed countries, on the other hand, record the lowest level of per capita emissions in Asia and the Pacific, at 0.2 tons. Small island developing States are the only group of countries that have registered a decline in CO_2 emissions per capita between 1990 and 2004, from 5.6 to 4.4.

If CO_2 emissions are calculated per unit of GDP, Asia and the Pacific has one of the highest CO_2 intensities in the world, although as with most

Figure 25.2 Index of change in CO_2 emissions per capita in the regions of the world, 1992-2004

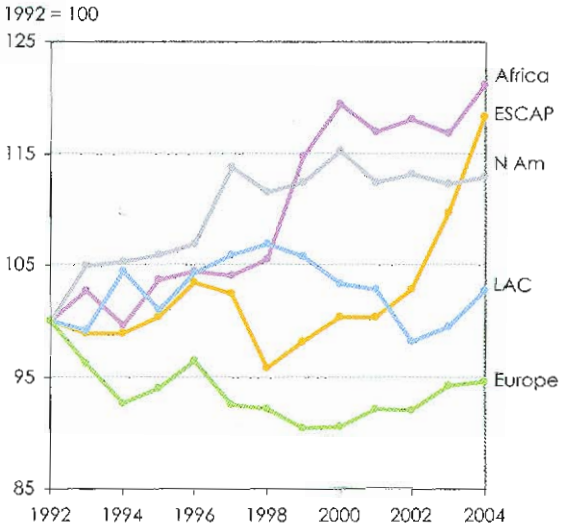
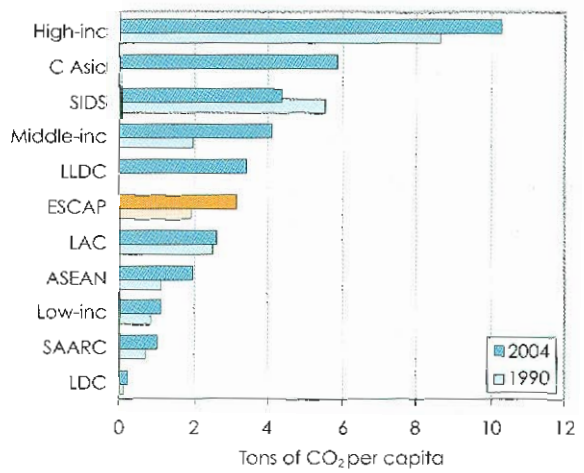


Figure 25.3 CO_2 emissions per capita in selected groups of Asian and Pacific countries, 1990 and 2004



world regions a decreasing trend since 1990 is visible (figure 25.4).

In absolute terms, the highest CO_2 emissions in Asia and the Pacific in absolute terms come from China, followed by the Russian Federation and India, which emit almost one third and one fourth, respectively, as much as China.

In most regions of the world, consumption of ozone-depleting substances has fallen significantly since 1995. Asia and the Pacific and North America have reduced per 1,000 population consumption of ozone-depleting substances by over 80 per cent despite their enduringly high consumption levels. These two regions along with Latin America and the Caribbean have the highest level of per 1,000 population consumption of these substances.

The most significant decline in per capita consumption of ozone-depleting substances took

Figure 25.4 CO_2 emissions per unit of GDP in selected groups of Asian and Pacific countries, 1990-2004

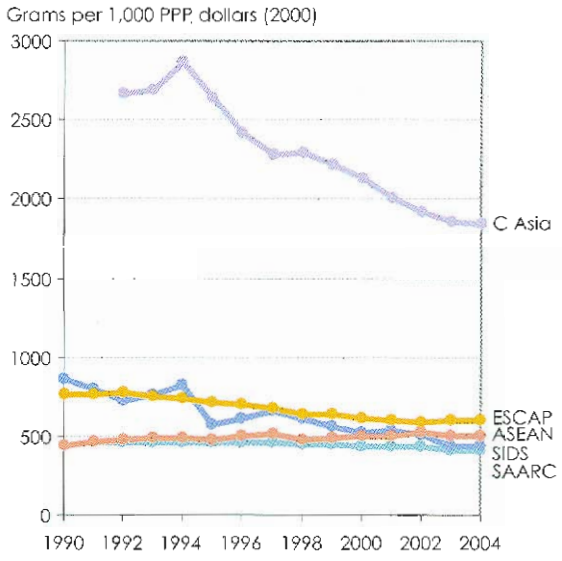
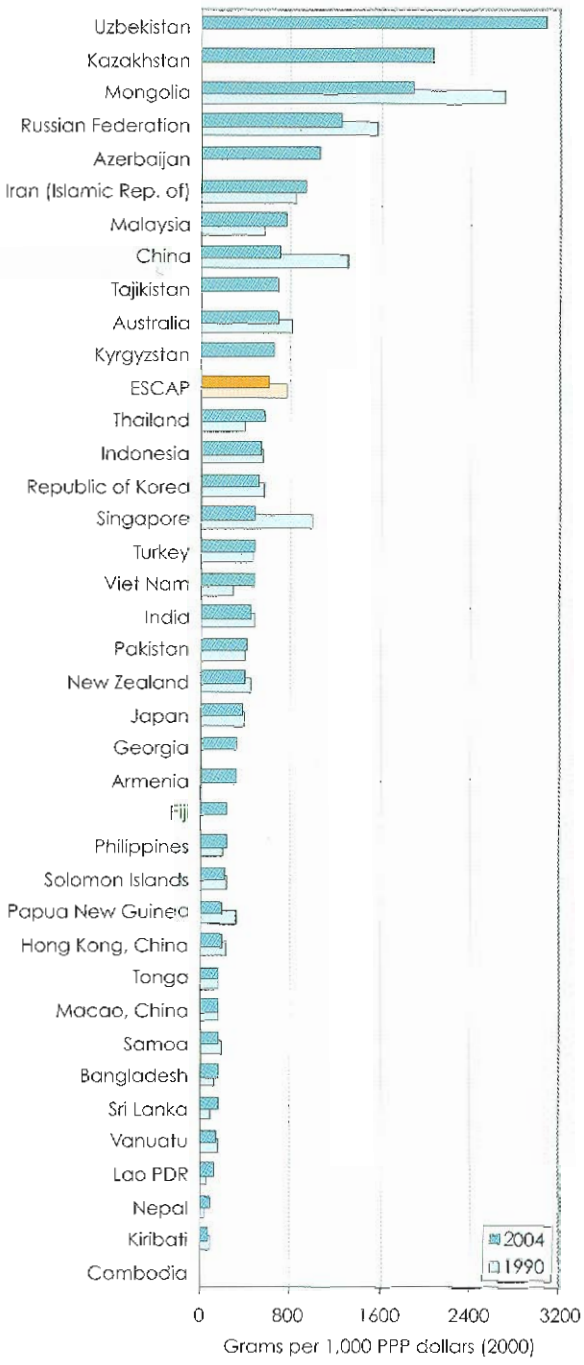


Figure 25.5 CO_2 emissions per unit of GDP in selected Asian and Pacific countries, 1990 and 2004



place in small island developing States, by nearly 87 per cent between 1995 and 2005. Least developed countries halved their per capita consumption of ozone-depleting substances to 2 kilograms per 1,000 population in 2005.

High-income countries reduced consumption of ozone-depleting substances per capita at the fastest pace among income groupings, by 88 per cent. Middle-income countries recorded a decrease of 77 per cent and low-income countries 68 per cent during the same period. The level of per 1,000 population consumption is still highest in high-income countries, at 33, compared with only 4 in low-income countries.

The picture changes, however, when consumption of ozone-depleting substances is measured per million units of GDP. As in the case of CO_2 emissions, such an indicator measures the intensity with which ozone-depleting substances are used in the production of goods and services.

For instance, North America is the region with the lowest level of consumption of ozone-depleting substances per million units of GDP despite having the highest per 1,000 population consumption of these substances. The Asian and Pacific region had the second lowest ozone-depleting substance consumption level per million units of GDP in 2004.

Figure 25.6 Consumption of ozone-depleting substances per capita in the regions of the world, 1990-2005

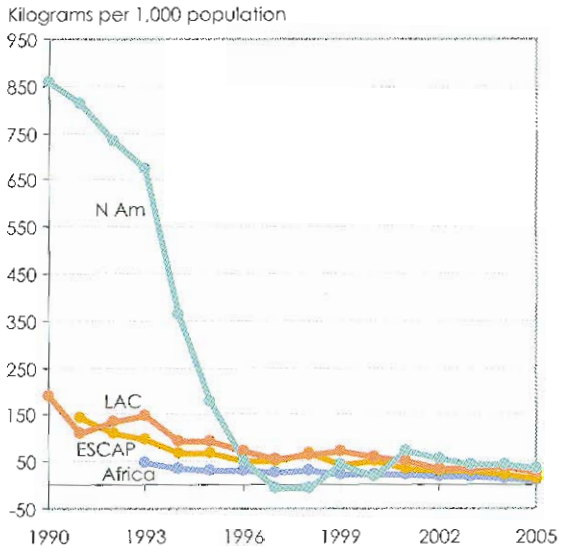


Figure 25.7 Consumption of ozone-depleting substances per capita in selected groups of Asian and Pacific countries, 1995 and 2005

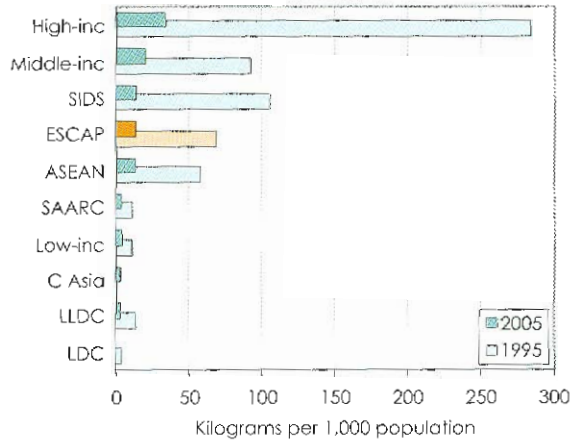


Figure 25.8 Consumption of ozone-depleting substances per unit of GDP in the regions of the world, 1990-2005

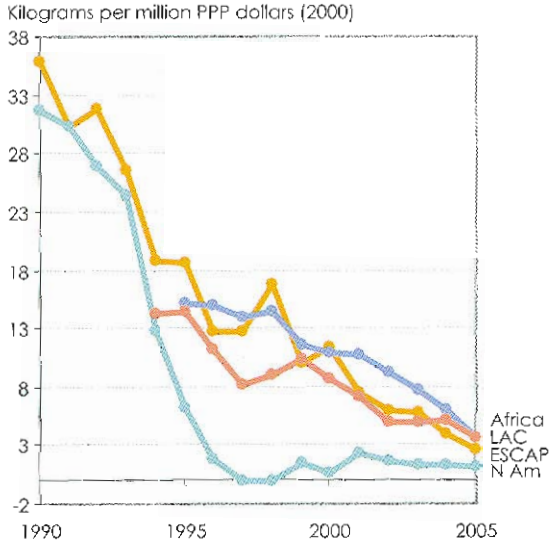
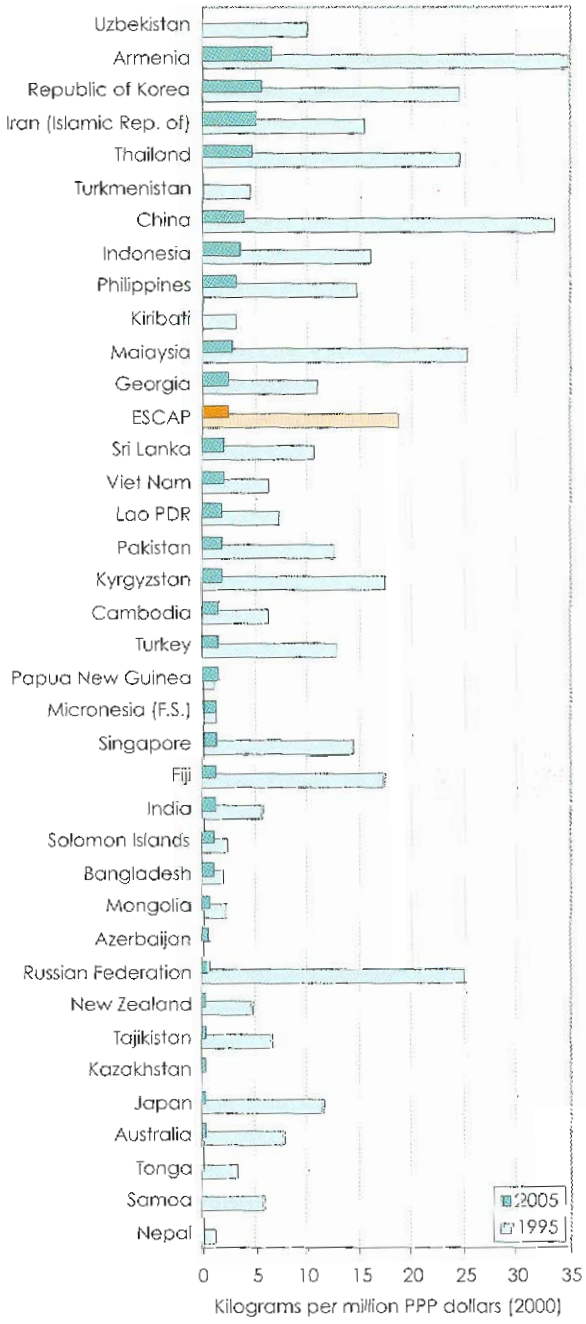


Figure 25.9 Consumption of ozone-depleting substances per capita in selected Asian and Pacific countries, 1995 and 2005

Figure 25.10 Consumption of ozone-depleting substances per unit of GDP in selected Asian and Pacific countries, 1995 and 2005



Carbon dioxide emissions per capita (tons of carbon dioxide): The quantity of estimated carbon dioxide emissions (tons of carbon dioxide) divided by total population. *Aggregates:* Averages are calculated using total population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Carbon dioxide emissions per unit of GDP (grams per 1,000 PPP dollars): The quantity of estimated carbon dioxide emissions (tons of carbon dioxide) divided by GDP in constant 2000 prices expressed in 1,000 PPP dollars. *Aggregates:* Averages are calculated using GDP, PPP (constant 2000) as weight. *Source:* Calculated by ESCAP using data from United Nations Millennium Development Goals Indicators (online database, accessed in September 2007) and World Bank, *World Development Indicators* (online database, accessed in September 2007).

Consumption of ozone-depleting substances per capita (ODP kilograms per 1,000 population): The sum of the national annual consumption in weighted tons of the individual substances in the group of ozone-depleting substances multiplied by their ozone-depleting potential. Ozone-depleting substances are any substance containing chlorine or bromine that destroys the stratospheric ozone layer. Expressed as ODP kilograms per 1,000 population. *Aggregates:* Averages are calculated using total population as weight. *Source:* United Nations Millennium Development Goals Indicators (online database, accessed in September 2007).

Consumption of ozone-depleting substances per unit of GDP (ODP kilograms per 1,000,000 PPP dollars): The sum of the national annual consumption in weighted tons of the individual substances in the group of ozone-depleting substances multiplied by their ozone-depleting potential. Ozone-depleting substances are any substance containing chlorine or bromine that destroys the stratospheric ozone layer. Expressed as ODP kilograms per GDP in constant 2000 prices expressed in 1,000,000 PPP dollars. *Aggregates:* Averages are calculated using GDP, PPP (constant 2000) as weight. *Source:* Calculated by ESCAP using data from United Nations Millennium Development Goals Indicators (online database, accessed in September 2007) and World Bank, *World Development Indicators* (online database, accessed in September 2007).

Nitrous oxide emissions (gigagrams of nitrous oxide): Total emissions of nitrogen oxide, nitrous oxide estimated using a model (RIVM) and data from the following EDGAR subdivisions: Energy, agriculture, waste and others. 'Others' include industrial process emissions, nitrous oxide usage and tropical and temperate forest fires. *Aggregates:* Sum of individual country values. *Source:* United Nations Environment Programme, Emission Database for Global Atmospheric Research (EDGAR 3.2) (online database, accessed in September 2007).

Sulphur dioxide emissions (gigagrams of sulphur dioxide): Total emissions of sulphur dioxide, sulphur dioxide estimated using a model (RIVM) and data from the following EDGAR subdivisions: Fuel combustion, biofuel combustion, fugitive, industry, solvent use, agriculture, waste and others. "Others" comprises tropical forest fires and temperate forest fires. *Aggregates:* Sum of individual country values. *Source:* United Nations Environment Programme, Emission Database for Global Atmospheric Research (EDGAR 3.2) (online database, accessed in September 2007).

Concentration of PM10 in urban areas (micrograms per cubic metre): Atmospheric particles of 10 micrometres or smaller less from natural and human sources. *Aggregates:* Sum of individual country values. *Source:* United Nations Environment Programme, Emission Database for Global Atmospheric Research (EDGAR 3.2) (online database, accessed in September 2007).

Industrial, organic water pollutant (BOD) emissions (kilograms per day): Biochemical oxygen demand, which refers to the amount of oxygen that bacteria in water will consume in breaking down waste. *Source:* United Nations Environment Programme, Emission Database for Global Atmospheric Research (EDGAR 3.2) (online database, accessed in September 2007).

25.1 Carbon dioxide emissions

	Carbon dioxide emissions per capita (Tons of carbon dioxide)					Carbon dioxide emissions per unit of GDP (Grams per 1,000 (2000 PPP dollars))				
	1990	1995	2000	2003	2004	1990	1995	2000	2003	2004
East and North-East Asia										
China	2.1	2.6	2.6	3.3	3.8	1 301	973	671	658	704
DPR Korea	12.2	11.9	3.4	3.3	3.4					
Hong Kong, China	4.6	4.8	5.8	5.6	5.4	233	203	220	208	187
Macao, China	2.8	3.0	3.7	4.0	4.7	159	142	193	170	157
Mongolia	4.5	3.3	3.0	3.2	3.3	2 714	2 481	2 044	1 973	1 898
Republic of Korea	5.6	8.3	9.2	9.6	9.8	574	610	567	523	511
South-East Asia										
Brunei Darussalam	22.7	17.7	25.6	22.5	24.1					
Cambodia	0.0	0.0	0.0	0.0	0.0		36	24	20	18
Indonesia	1.2	1.5	1.7	1.9	1.7	540	524	610	601	530
Lao PDR	0.1	0.1	0.2	0.2	0.2	54	53	127	133	127
Malaysia	3.1	5.8	5.4	6.3	7.0	558	766	642	719	761
Myanmar	0.1	0.2	0.2	0.2	0.2					
Philippines	0.7	0.9	1.0	0.9	1.0	194	250	255	225	223
Singapore	15.0	13.5	14.1	11.3	12.2	988	672	597	483	485
Thailand	1.8	3.2	3.3	4.0	4.3	382	478	519	550	565
Timor-Leste				0.2	0.2					
Viet Nam	0.3	0.4	0.7	0.9	1.2	281	264	340	397	471
South and South-West Asia										
Afghanistan	0.2	0.1	0.0	0.0	0.0					
Bangladesh	0.1	0.2	0.2	0.2	0.2	123	146	141	155	152
Bhutan	0.2	0.5	0.7	0.6	0.7					
India	0.8	1.0	1.1	1.1	1.2	485	505	481	445	436
Iran (Islamic Rep. of)	3.9	4.3	5.3	5.9	6.3	852	886	949	915	935
Maldives	0.7	1.1	1.8	2.1	2.5					
Nepal	0.0	0.1	0.1	0.1	0.1	32	80	100	84	84
Pakistan	0.6	0.7	0.7	0.7	0.8	386	382	409	355	412
Sri Lanka	0.2	0.3	0.5	0.5	0.6	94	111	153	142	151
Turkey	2.6	2.7	3.3	3.1	3.1	455	478	513	501	482
North and Central Asia										
Armenia		1.1	1.1	1.1	1.2		588	465	325	313
Azerbaijan		4.3	3.7	3.6	3.8		2 355	1 518	1 099	1 057
Georgia		0.5	1.0	0.8	0.9		322	481	324	319
Kazakhstan		10.9	9.3	11.9	13.3		3 036	2 163	2 029	2 075
Kyrgyzstan		1.0	0.9	1.1	1.1		827	632	649	646
Russian Federation		10.1	10.0	10.5	10.5	1 571	1 827	1 519	1 337	1 247
Tajikistan		0.9	0.6	0.7	0.8		1 039	802	709	685
Turkmenistan		8.4	8.3	9.7	8.8		2 815	2 428		
Uzbekistan		4.6	5.2	5.2	5.3		3 475	3 496	3 208	3 073
Pacific										
American Samoa										
Cook Islands	1.2	1.2	1.8	2.0	2.0					
Fiji	1.1	1.2	1.1	1.4	1.3		244	212	258	236
French Polynesia	3.1	2.6	2.7	2.8	2.7					
Guam										
Kiribati	0.3	0.3	0.4	0.3	0.3	86	71	80	71	72
Marshall Islands										
Micronesia (F.S.)										
Nauru	14.4	14.0	13.5	14.2	14.2					
New Caledonia	9.4	8.9	10.5	12.2	11.2					
Niue	1.6	1.6	2.0	2.1	2.2					
Northern Mariana Is.										
Palau	15.7	14.0	12.4	12.0	11.9					
Papua New Guinea	0.6	0.5	0.5	0.4	0.4	313	205	206	198	188
Samoa	0.8	0.8	0.8	0.8	0.8	194	195	169	161	156
Solomon Islands	0.5	0.4	0.4	0.4	0.4	232	179	202	231	214
Tonga	0.8	1.1	1.2	1.2	1.2	153	181	184	159	161
Tuvalu										
Vanuatu	0.4	0.4	0.4	0.4	0.4	164	119	135	155	149
ESCAP Developed Economies										
Australia	16.5	17.3	17.6	15.9	16.3	811	757	717	682	683
Japan	8.7	9.1	9.5	9.6	9.8	391	389	379	379	371
New Zealand	6.6	6.8	8.4	8.1	7.8	438	403	405	402	381
ESCAP	1.9	2.7	2.7	2.9	3.2	761	714	612	594	602
LLDC		3.3	3.0	3.3	3.4		2 248	1 796	1 594	1 588
LDC	0.1	0.2	0.2	0.2	0.2	110	127	126	134	131
SIDS	5.6	5.1	5.4	4.2	4.4	858	574	528	436	438
ASEAN	1.1	1.6	1.7	1.9	2.0	433	474	498	503	494
SAARC	0.7	0.8	0.9	1.0	1.0	436	455	440	408	407
Central Asia		5.2	5.0	5.6	5.8		2 639	2 126	1 855	1 837
Low-income	0.8	1.0	1.0	1.0	1.1	440	491	475	443	443
Middle-income	2.0	3.2	3.2	3.7	4.1	1 125	980	763	727	742
High-income	8.6	9.5	10.2	10.1	10.3	450	451	441	431	423
Africa	1.1	1.1	1.3	1.2	1.3	515	560	605	568	575
Latin America & Carib.	2.5	2.6	2.6	2.5	2.6	403	384	366	359	356
North America	18.5	19.1	20.7	20.2	20.3	711	672	606	579	566
Europe	8.4	7.8	7.6	7.9	7.9	565	479	406	402	393
Other Asia-Pacific	6.9	7.1	7.7	8.0	7.8					
World										

25.2 Ozone-depleting substances

	Consumption of ozone-depleting substances per capita ODP kilograms per 1,000 population					Consumption of ozone-depleting substances per unit of GDP ODP kilograms per 1,000,000 (2000 PPP dollars)				
	1990	1995	2000	2004	2005	1990	1995	2000	2004	2005
East and North-East Asia										
China	51.9	91.0	113.3	27.2	23.6	32.3	33.6	18.3	5.0	4.0
DPR Korea		61.2	49.1	93.8	12.0					
Hong Kong, China										
Macao, China										
Mongolia		3.1	4.6	1.8	1.5		2.2	3.0	1.1	0.8
Republic of Korea		333.3	293.8	150.6	111.5		24.5	18.1	7.9	5.6
South-East Asia										
Brunei Darussalam		228.2	143.3	173.2	112.4					
Cambodia		8.5	7.6	5.4	3.7		6.3	4.4	2.5	1.5
Indonesia		46.6	25.8	19.1	12.1		15.9	9.1	6.0	3.6
Lao PDR		9.2	8.6	4.1	3.7		7.3	5.7	2.3	2.0
Malaysia	231.7	191.5	104.6	58.5	26.2	42.3	25.3	12.4	6.3	2.7
Myanmar		1.2	0.6	0.7	0.3					
Philippines	56.8	54.0	40.2	19.0	14.6	15.4	14.7	10.0	4.3	3.2
Singapore	1 609.6	285.2	42.6	50.5	34.9	106.3	14.2	1.8	2.0	1.3
Thailand	128.6	161.9	84.1	40.4	36.8	27.8	24.5	13.2	5.3	4.7
Timor-Leste										
Viet Nam		9.5	4.7	5.0	5.4		6.2	2.3	2.0	2.0
South and South-West Asia										
Afghanistan		20.9	0.0	7.5	5.8					
Bangladesh	1.8	2.3	5.9	2.1	1.8	1.6	1.9	4.1	1.3	1.1
Bhutan		0.3		0.2						
India		10.8	17.9	9.1	3.8	0.0	5.7	7.8	3.3	1.3
Iran (Islamic Rep. of)	24.6	75.4	86.1	90.1	35.3	5.4	15.5	15.4	13.4	5.1
Maldives	20.9	23.8	16.7	7.7	10.2					
Nepal		1.4	4.1	0.0			1.2	3.1	0.0	
Pakistan	12.9	21.7	18.0	10.2	3.8	8.3	12.5	10.0	5.2	1.8
Sri Lanka	12.7	30.5	13.5	10.4	8.6	5.4	10.6	3.8	2.6	2.0
Turkey	76.0	73.4	23.4	12.3	10.9	14.2	12.8	3.6	1.8	1.5
North and Central Asia										
Armenia		62.5	8.3	37.9	28.8		34.8	3.5	9.9	6.6
Azerbaijan			10.8	1.8	2.6			4.4	0.5	0.6
Georgia		15.5	14.0	12.3	7.6		11.0	7.0	4.6	2.5
Kazakhstan	142.5		40.0	3.0	2.6	25.3		9.3	0.5	0.4
Kyrgyzstan		21.2	10.9	7.1	3.1		17.3	7.3	4.2	1.8
Russian Federation	878.6	158.5	174.6	7.6	5.4	85.7	25.0	25.1	0.9	0.6
Tajikistan		5.7	4.7	0.5	0.5		6.6	5.8	0.4	0.4
Turkmenistan	39.6	13.5	5.2	12.4	5.6	7.2	4.5	1.6		
Uzbekistan		13.3	1.8	0.1	0.2		10.0	1.2	0.0	0.1
Pacific										
American Samoa										
Cook Islands		138.2		2.3						
Fiji	57.8	81.5	3.0	6.7	7.2		17.3	0.5	1.3	1.3
French Polynesia										
Guam										
Kiribati		11.5	0.3	0.1			3.2			
Marshall Islands	26.2	25.4	12.7	1.7						
Micronesia (F.S.)		12.4	9.7	16.6	9.1		1.4	1.4	2.8	1.4
Nauru		61.9	43.0	1.7						
New Caledonia										
Niue		37.0								
Northern Mariana Is.										
Palau		100.7	3 669.2	50.9						
Papua New Guinea		2.7	9.7	3.5	3.1		1.1	4.2	1.6	1.4
Samoa		26.0	3.9	2.0			5.9	1.2		
Solomon Islands	6.6	6.6	2.0	3.4	2.1	2.9	2.2	1.3	2.4	1.2
Tonga		22.9	5.2	0.6			3.3	1.5		
Tuvalu		31.6		1.0						
Vanuatu		2.8								
ESCAP Developed Economies										
Australia	440.6	172.7	25.3	9.5	8.3	21.6	7.7	1.0	0.3	0.3
Japan	972.0	287.7	47.1	15.3	8.4	41.0	11.4	1.8	0.6	0.3
New Zealand	350.5	87.9	6.0	9.6	10.3	20.6	4.8	0.2	0.4	0.5
ESCAP		69.2	49.3	20.0	13.9	35.8	18.6	11.3	3.8	2.5
ULDC		13.1	8.5	3.8	2.8			5.1	1.9	1.3
LDC		4.0	4.4	2.3	1.9		4.5	4.1	1.9	1.5
SIDS		105.9	26.0	19.9	14.1	105.8	12.3	2.6	1.9	1.3
ASEAN		58.5	32.4	19.4	13.8		17.9	9.5	5.0	3.4
SAARC	1.7	11.3	16.1	8.3	3.6	1.1	6.3	7.6	3.3	1.4
Central Asia			13.0	4.5	3.1			5.6	1.6	1.0
Low-income	1.5	11.4	15.2	8.9	3.6	1.0	6.8	7.6	3.8	1.4
Middle-income	134.8	91.5	71.3	26.4	20.6	45.8	26.9	16.6	4.7	3.4
High-income	909.6	283.7	101.7	47.2	33.2	39.6	12.9	4.3	1.9	1.3
Africa		28.0	21.5	12.4	7.9		15.0	10.9	5.8	3.6
Latin America & Carib.	188.2	93.5	60.0	36.4	26.2	30.4	14.4	8.6	5.1	3.6
North America	855.5	177.8	15.6	43.8	34.5	31.6	6.1	0.5	1.2	1.0
Europe										
Other Asia-Pacific										
World										

25.3 Other pollutants

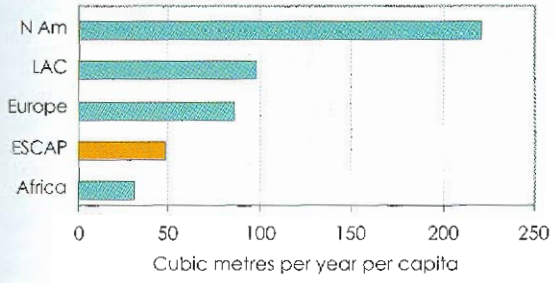
	Nitrous oxide emissions Gigagrams of N_2O		Sulphur dioxide emissions Gigagrams of SO_2		Concentration of PM10 in urban areas Micrograms per m^3	Industrial, organic water pollutant (BOD) emissions Kilograms per day				
	2000	1990	1995	2000	1999	1990	1995	2000	2001	2002
East and North-East Asia										
China	1 765.3	25 565.9	34 544.1	34 454.3	87.0	7 124.3	7 610.0	6 268.9	6 127.6	
DPR Korea	44.9	1 363.8	1 044.1	867.4	92.6					
Hong Kong, China										
Macao, China		3.0	4.3	4.3	101.6	7.1	5.0	5.4	5.5	5.1
Mongolia	54.5	14.9	12.6	12.2	70.5	10.2	7.9			
Republic of Korea	38.6	2 429.9	3 290.7	4 285.0	42.5	369.2	353.6	310.9	309.5	
South-East Asia										
Brunei Darussalam	1.2	2.7	8.8	8.6	38.4					
Cambodia	11.2	16.5	18.2	29.3	68.6	11.8				
Indonesia	222.8	712.0	797.6	1 347.6	101.5	495.6	749.9	752.9	753.7	720.3
Lao PDR	14.4	11.8	12.9	52.6	47.4					
Malaysia	28.6	369.6	429.9	418.4	24.0	104.7	158.5	186.1	170.7	
Myanmar	71.1	56.9	56.2	127.8	89.2	7.7	4.4	5.7	5.9	6.2
Philippines	59.5	619.0	633.5	688.1	49.3	228.3	164.2			
Singapore	3.3	334.8	418.4	1 093.7	41.0	32.4	33.9	32.2	31.7	33.6
Thailand	83.4	760.9	1 233.4	1 305.5	76.1	291.6				
Timor-Leste										
Viet Nam	87.5	165.6	193.6	255.9	75.1					
South and South-West Asia										
Afghanistan	19.3	115.7	131.8	32.7	47.4				0.1	0.2
Bangladesh	108.2	186.2	194.0	221.7	147.0	171.1	251.0			
Bhutan	0.5	3.7	3.8	3.8	41.0					
India	900.7	5 019.5	6 484.3	7 919.6	88.8	1 410.6	1 686.9	1 616.9	1 515.7	
Iran (Islamic Rep. of)	189.4	1 155.0	1 233.5	1 401.4	71.2	102.7	125.8	140.8	142.0	
Maldives	0.0	0.6	1.0	1.0	49.1					
Nepal	21.0	56.0	67.5	83.3	49.6	20.9				26.9
Pakistan	238.7	415.3	567.3	713.2	180.1	104.1				
Sri Lanka	9.1	38.4	43.7	107.7	93.8	53.0	83.9	88.9		
Turkey	136.4	1 594.3	1 771.3	2 074.7	54.1	177.3	170.9	188.2		
North and Central Asia										
Armenia	1.6	86.3	15.3	13.9	84.9	37.9	14.8	8.0	7.1	
Azerbaijan	11.4	174.0	261.8	164.7	99.3	53.3	41.3	20.0	18.7	17.5
Georgia	5.2				97.9					
Kazakhstan	32.4	2 604.2	2 112.4	2 040.6	26.7					
Kyrgyzstan	10.2	71.7	22.5	32.9	40.9	30.9	16.4	14.1	20.7	20.8
Russian Federation	165.8	17 551.2	9 772.7	9 792.9	25.8		1 695.1	1 479.2	1 485.0	1 518.7
Tajikistan	6.2	11.4	5.3	6.3	63.6					
Turkmenistan	11.7	166.1	65.2	71.3	67.7					
Uzbekistan	39.9	476.3	419.1	385.2	83.1					
Pacific										
American Samoa	12.6	0.8	0.9	1.0						
Cook Islands		0.1	0.1	0.1						
Fiji	3.0	3.2	3.1	2.8	33.6	4.8				
French Polynesia	0.1	1.8	1.9	1.9						
Guam	0.0	0.4	0.4	0.4						
Kiribati	0.0	0.1	0.1	0.1						
Marshall Islands		0.0	0.0	0.0						
Micronesia (F.S.)	0.0	0.7	0.8	0.8						
Nauru		0.4	0.5	0.5						
New Caledonia	0.5	6.4	7.0	7.3	73.9					
Niue		0.0	0.0	0.0						
Northern Mariana Is.		0.1	0.1	0.1						
Palau		0.0	0.0	0.0						
Papua New Guinea	9.1	20.2	22.2	32.0	31.2					
Samoa	0.3	0.5	0.6	0.5						
Solomon Islands	0.2	0.9	0.9	0.7	31.2					
Tonga	0.1	0.3	0.4	0.4		0.2				
Tuvalu		0.0	0.0	0.0						
Vanuatu	0.7	0.9	0.9	0.3	28.3					
ESCAP Developed Economies										
Australia	336.2	1 484.6	1 573.5	2 583.0	18.1	186.1	103.6	105.2	111.7	
Japan	93.7	2 084.9	2 162.1	2 596.7	33.2	1 556.6	1 456.1	1 332.3	1 279.3	
New Zealand	95.5	76.5	85.0	96.7	16.3	50.2	50.0	46.1		
ESCAP	4 946.2	65 835.9	69 731.5	75 342.9	2 683.0					
LLDC	223.0	3 792.2	3 130.2	2 899.4	722.2					
LDC	247.0	449.8	488.0	553.9	598.9					
SIDS	30.1	372.0	459.3	1 143.7	288.3					
ASEAN	583.0	3 049.6	3 802.5	5 327.6	610.7					
SAARC	1 297.6	5 835.5	7 493.6	9 083.0	696.9					
Central Asia	118.6	3 590.1	2 901.5	2 714.8	564.1					
Low-income	1 637.0	8 002.9	9 252.8	10 772.6	1 206.6					
Middle-income	2 740.0	51 407.7	52 926.1	53 892.0	1 111.3					
High-income	569.2	6 424.8	7 552.1	10 677.6	365.1					
Africa	1 748.4	7 682.2	6 876.3	8 818.1	3 372.3					
Latin America & Carib.	1 986.7	8 803.4	10 083.1	12 862.8	1 688.7					
North America	1 731.8	25 018.6	20 941.3	21 177.2	47.3					
Europe	1 654.6	43 849.4	30 349.3	26 156.8	1 125.2					
Other Asia-Pacific	120.4	3 082.8	3 925.6	6 325.8	1 167.1					
World	12 208.3	154 280.3	141 875.4	150 338.5	10 083.6					

26. Water use

Water is a vital resource, but millions of people do not have access to clean water resources and experience water shortages. The overwhelming majority of them live in Asia and the Pacific, despite high levels of total water consumption in the region.

Domestic water withdrawal per capita in Asia and the Pacific is nearly 49 cubic metres per year, which places the region ahead of Africa, at 31, but behind Latin America and the Caribbean, at 98. North America has the highest level of domestic water use per capita at 221, while Europe is a more efficient user of water, at 86 cubic metres per capita.

Figure 26.1 Domestic water withdrawal per capita in the regions of the world, 2000

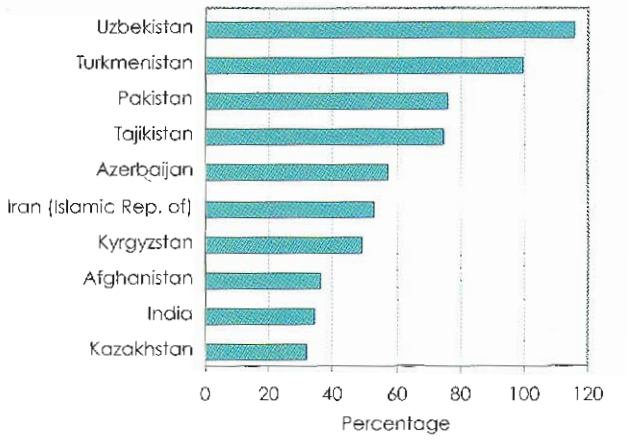


Within the Asian and Pacific region, there is a broad range of water withdrawal levels for domestic use. Central Asia withdraws 98 cubic metres per capita while the SAARC and ASEAN regions have similar annual per capita withdrawal levels, at 42 and 41 cubic metres, respectively. High-income countries use more than three times as much water as low- and middle-income countries, which withdraw similar amounts of water per capita for domestic use, at 44 and 43 cubic metres.

Armenia has an annual per capita water withdrawal level of 286 cubic metres, which is nearly six times as much as the regional average. Four of the five developing countries with the highest levels of per capita water withdrawal for domestic use are in Central Asia, and three are also landlocked countries. The three countries with the lowest level of per capita water withdrawal for domestic use are Cambodia, Myanmar and Papua New Guinea.

Of the 10 countries with the highest amounts of water withdrawal as a proportion of total renewable water, 6 are in Central Asia, and 7 of them are landlocked countries. Seven of these countries withdraw more than 40 per cent of the renewable water resources, indicating severe stress on their water resources (ESCAP, 2005b).

Figure 26.2 The 10 Asian and Pacific countries/areas with highest proportion of water withdrawal in relation to total renewable water, 1998-2002

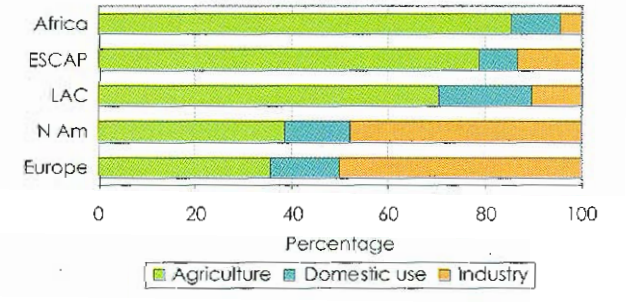


The Asian and Pacific region is home to more than 60 per cent of the world's population and agricultural land. The region is also the largest consumer of water by far, with a withdrawal rate of 2,384 billion cubic metres per year, which is more than the consumption of rest of the world.

The Asian and Pacific region uses the largest proportion of its water — nearly 79 per cent of its total withdrawal — for agriculture. This is followed by industrial use, at about 13 per cent, and domestic purposes, at 8 per cent. Of the 32 developing countries in Asia and the Pacific for which data are available, 29 withdraw more than 50 per cent of their water for agriculture. In 16 of these countries, more than 90 per cent of the water withdrawn is used in the agricultural sector.

In the other developing regions of the world, agriculture also consumes the largest share of water withdrawn. In Africa, agricultural consumption comprises 84 per cent of total water consumption, whereas in Latin America and the Caribbean this share is about 71 per cent. Both these regions differ from Asia and the Pacific in that they consume more water for domestic purposes than for industry. In

Figure 26.3 Water withdrawal by sector in the regions of the world, 2000



North America and Europe, the largest share of water is used for industry, followed by agriculture and domestic purposes.

Groups of countries within Asia and the Pacific follow a pattern similar to that of the region as a whole, except the SAARC region and the least developed countries (five of the eight SAARC members are least developed countries), which have a higher share of water consumption for domestic purposes than for industrial use.

In Asia and the Pacific, the six largest consumers of water for which trend data are available are China, India, Pakistan, Indonesia, the Russian Federation and the Islamic Republic of Iran. All except the Russian Federation increased water withdrawal between the early 1990s and 2000. Bangladesh, Thailand and Viet Nam are also among the countries withdrawing high levels of water in the region, that is, above 70 billion cubic metres per year.

Figure 26.4 Water withdrawal by sector in selected Asian and Pacific country/area groupings, 2000

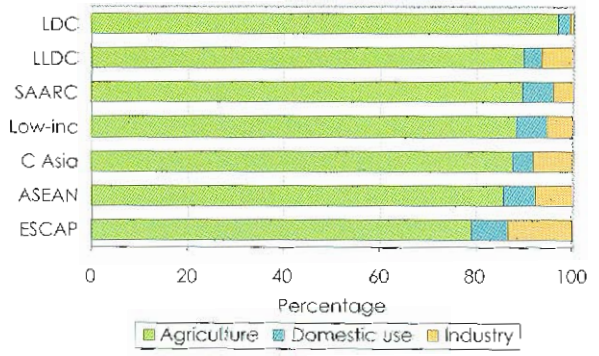
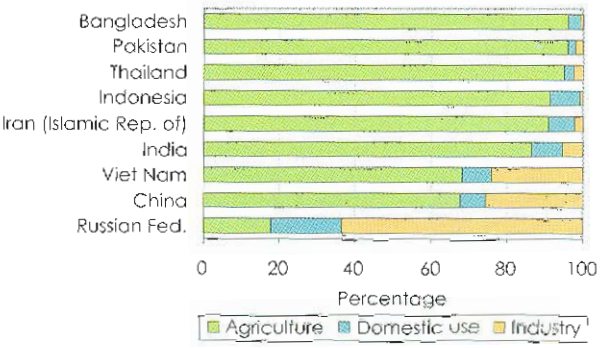


Figure 26.5 Water withdrawal by sector in selected Asian and Pacific countries/areas, 2000



Domestic water withdrawal per capita (cubic metres per year): Drinking water plus water withdrawn for homes, municipalities, commercial establishments, and public services, divided by population. *Aggregates:* Averages are calculated using total population as weight. *Source:* Food and Agriculture Organization of the United Nations, FAO Information system on Water and Agriculture (online database, accessed in September 2007).

Annual withdrawals of ground and surface water (percentage of total renewable water): The gross amount of water extracted in a day from any source either permanently or temporarily. Water sources can be either withdrawn from surface water, groundwater or produced (non-conventional water sources), such as reused treated wastewater and desalinated water. *Source:* Food and Agriculture Organization of the United Nations, FAO Information system on Water and Agriculture (online database, accessed in September 2007).

Total water withdrawal (billion cubic metres per year): The gross quantity of water withdrawn for agricultural, industrial and domestic purposes in a given country. Does not include other categories of water use, such as for cooling of power plants, mining, recreation, navigation, or fisheries. *Aggregates:* Sum of individual country values. *Source:* Food and Agriculture Organization of the United Nations, FAO Information system on Water and Agriculture (online database, accessed in September 2007).

Water withdrawal for domestic use (percentage of total water withdrawal): The total water withdrawn by the public distribution network. It can include that part of the industries, which are connected to the network. *Aggregates:* Averages are calculated as the sum of individual country values within each group divided by the total water withdrawal of each group. *Source:* Food and Agriculture Organization of the United Nations, FAO Information system on Water and Agriculture (online database, accessed in September 2007).

Water withdrawal for agriculture (percentage of total water withdrawal): Quantity of water used for agricultural purposes, including irrigation and for livestock. Methods for computing agricultural water withdrawal vary from country to country. *Aggregates:* Averages are calculated as the sum of individual country values within each group divided by the total water withdrawal of each group *Source:* Food and Agriculture Organization of the United Nations, FAO Information system on Water and Agriculture (online database, accessed in September 2007).

Water withdrawal for industry (percentage of total water withdrawal): Quantity of water used for industrial purposes. Usually, this sector refers to self-supplied industries not connected to any distribution network. *Aggregates:* Averages are calculated as the sum of individual country values within each group divided by the total water withdrawal of each group *Source:* Food and Agriculture Organization of the United Nations, FAO Information system on Water and Agriculture (online database, accessed in September 2007).

26.1 Water domestic use and resources

	Domestic water withdrawal per capita Cubic metres per year			Annual withdrawals of ground and surface water % of total renewable water		
	1990	1995	2000	1988-1992	1993-1997	1998-2002
East and North-East Asia						
China	30.5		32.7	17.7	18.6	22.3
DPR Korea			78.0			11.7
Hong Kong, China						
Macao, China						
Mongolia			36.4		1.2	1.3
Republic of Korea			141.5			26.7
South-East Asia						
Brunei Darussalam				0.9	1.1	
Cambodia			4.7			0.9
Indonesia	25.9		31.3	2.6		2.9
Lao PDR			24.9			0.9
Malaysia	45.2	65.2	65.3	1.7		1.6
Myanmar			8.9			3.2
Philippines		62.2	62.1		5.8	6.0
Singapore						
Thailand	27.6		35.8			21.2
Timor-Leste						
Viet Nam	30.2		70.0	6.1		8.0
South and South-West Asia						
Afghanistan			20.3			35.8
Bangladesh	15.0		18.1			6.6
Bhutan			35.8			0.4
India	29.1		49.9	26.4		34.1
Iran (Islamic Rep. of)			75.0		50.9	53.0
Maldives						
Nepal			12.3			4.8
Pakistan			22.7	69.9		76.1
Sri Lanka	11.4		16.0	19.5		25.2
Turkey			81.6	14.8		17.6
North and Central Asia						
Armenia	273.1	268.1	285.5	33.3	27.8	28.0
Azerbaijan	102.2	99.9	101.9	51.4	54.6	57.0
Georgia	133.3		152.5	5.5		5.7
Kazakhstan	38.3	36.6	39.5	33.4	30.7	31.9
Kyrgyzstan	62.6		64.7	53.4	49.0	49.0
Russian Federation	98.6		97.5	1.8	1.7	1.7
Tajikistan	91.5		71.3	75.2	74.3	74.8
Turkmenistan	52.1		93.3	100.1	96.2	99.7
Uzbekistan	100.0		112.0	124.0	115.2	115.7
Pacific						
American Samoa						
Cook Islands						
Fiji			12.5			0.2
French Polynesia						
Guam						
Kiribati						
Marshall Islands						
Micronesia (F.S.)						
Nauru						
New Caledonia						
Niue						
Northern Mariana Is.						
Palau						
Papua New Guinea			7.4			0.0
Samoa						
Solomon Islands						
Tonga						
Tuvalu						
Vanuatu						
ESCAP Developed Economies						
Australia			*183.9*			4.9
Japan			137.0	21.3		20.6
New Zealand			264.7			0.6
ESCAP	34.3		49.0			
LLDC			60.1			
LDC			15.5			
SIDS						
ASEAN	28.1		41.1			
SAARC	27.2		42.4			
Central Asia	91.1		97.8			
Low-income	29.5		44.4			
Middle-income	37.4		43.0			
High-income			145.1			
Africa			31.1			
Latin America & Carib.			97.7			
North America	210.7		221.3			
Europe			86.3			
Other Asia-Pacific			60.5			
World						

26.2 Water uses by sector

	Total water withdrawal		Water withdrawal					
			For domestic use		For agriculture		For industry	
	Billion cubic metres per year		% of total water withdrawal					
	1990	2000	1990	2000	1990	2000	1990	2000
East and North-East Asia								
China	500.0	630.3	7.0	6.6	83.0	67.7	10.0	25.7
DPR Korea		9.0		19.8		55.0		25.2
Hong Kong, China								
Macao, China								
Mongolia	0.4 (93)	0.4	19.9 (93)	20.5	53.0 (93)	52.3	27.1 (93)	27.3
Republic of Korea		18.6		35.6		48.0		16.4
South-East Asia								
Brunei Darussalam	0.1 (91)							
Cambodia		4.1		1.5		97.8		0.5
Indonesia	74.3	82.8	6.4	8.0	93.1	91.3	0.5	0.7
Lao PDR		3.0		4.3		90.3		5.7
Malaysia	10.1	9.0	8.1	16.9	82.0	62.1	9.9	21.1
Myanmar		33.2		1.2		98.3		0.5
Philippines	27.7 (95)	28.5	15.4 (95)	16.6	76.3 (95)	74.0	8.3 (95)	9.4
Singapore								
Thailand		87.1		2.5		95.0		2.5
Timor-Leste								
Viet Nam	54.3	71.4	3.7	7.8	86.5	68.1	9.8	24.1
South and South-West Asia								
Afghanistan		23.3		1.8		98.2		0.0
Bangladesh		79.4		3.2		96.2		0.7
Bhutan		0.4		4.8		95.2		1.2
India	500.0	645.8	5.0	8.1	92.0	86.5	3.0	5.5
Iran (Islamic Rep. of)	70.0 (93)	72.9	6.3 (93)	6.8	91.6 (93)	90.9	2.1 (93)	2.3
Maldives								
Nepal		10.2		2.9		96.5		0.6
Pakistan	155.6 (91)	169.4	1.6 (91)	1.9	96.8 (91)	96.0	1.6 (91)	2.0
Sri Lanka	9.8	12.6	2.0	2.4	96.0	95.2	2.0	2.5
Turkey	31.6 (92)	37.5	16.5 (92)	14.8	72.5 (92)	74.3	11.1 (92)	11.0
North and Central Asia								
Armenia	3.5	3.0	27.6	29.8	67.4	65.8	5.0	4.4
Azerbaijan	15.6	17.3	4.7	4.8	72.5	67.5	22.8	27.7
Georgia	3.5	3.6	21.0	19.9	58.9	59.0	20.1	21.1
Kazakhstan	36.6	35.0	1.7	1.7	80.3	81.8	18.0	16.5
Kyrgyzstan	11.0	10.1	2.5	3.2	91.9	93.8	5.6	3.1
Russian Federation	82.6	76.7	17.7	18.8	23.5	17.8	58.7	63.5
Tajikistan	12.0	12.0	4.0	3.7	91.0	91.6	4.9	4.7
Turkmenistan	24.7	24.6	0.8	1.7	98.7	97.6	0.5	0.8
Uzbekistan	62.5	58.3	3.3	4.7	94.7	93.2	2.0	2.1
Pacific								
American Samoa								
Cook Islands								
Fiji		0.1		14.3		71.4		14.3
French Polynesia								
Guam								
Kiribati								
Marshall Islands								
Micronesia (F.S.)								
Nauru								
New Caledonia								
Niue								
Northern Mariana Is.								
Palau								
Papua New Guinea		0.1		50.0		1.3		37.5
Samoa								
Solomon Islands								
Tonga								
Tuvalu								
Vanuatu								
ESCAP Developed Economies								
Australia		23.9		14.7		75.3		10.0
Japan	91.4 (92)	88.4	18.6 (92)	19.7	64.1 (92)	62.5	17.3 (92)	17.9
New Zealand		2.1		48.3		42.2		9.5
ESCAP		2 384.0		7.7		78.9		13.4
LLDC		197.5		3.7		89.6		6.7
LDC		153.6		2.5		96.9		0.6
SIDS								
ASEAN		319.1		6.6		85.6		7.8
SAARC		941.1		6.3		89.5		4.2
Central Asia		163.8		4.3		87.4		8.4
Low-income		1 129.7		6.2		88.3		5.4
Middle-income		1 121.3		7.6		71.4		21.0
High-income		133.1		21.5		62.4		16.1
Africa		210.8		9.9		84.0		4.2
Latin America & Carib.		265.1		19.1		70.7		10.4
North America		525.3		13.3		38.7		48.0
Europe		332.6		14.3		35.6		50.1
Other Asia-Pacific		96.0		6.6		90.2		3.2
World								

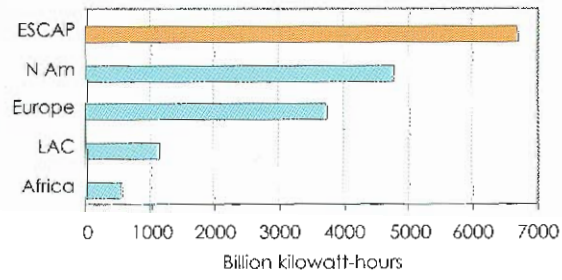
27. Energy supply and use

Between 2000 and 2004, electricity production increased in all parts of the world, nowhere faster that in Asia and the Pacific, where it grew at an average annual growth rate of 5.7 per cent.

In the growth rate of electricity production, the Asian and Pacific region is followed by Africa, with 5.5 per cent, and Latin America, with 2.9 per cent. Europe and North America increased electricity generation at an average annual rate of 1.8 and 0.6 per cent, respectively, during the same period. These figures show that the developing regions have increased their electricity production at a much higher rate than the developed regions.

Asia and the Pacific generates more electricity than any other region of the world. It generates about 1.5 times as much electricity as North America, twice as much as Europe, six times as much as Latin America and the Caribbean and ten times as much as Africa.

Figure 27.1 Electricity production in the regions of the world, 2004

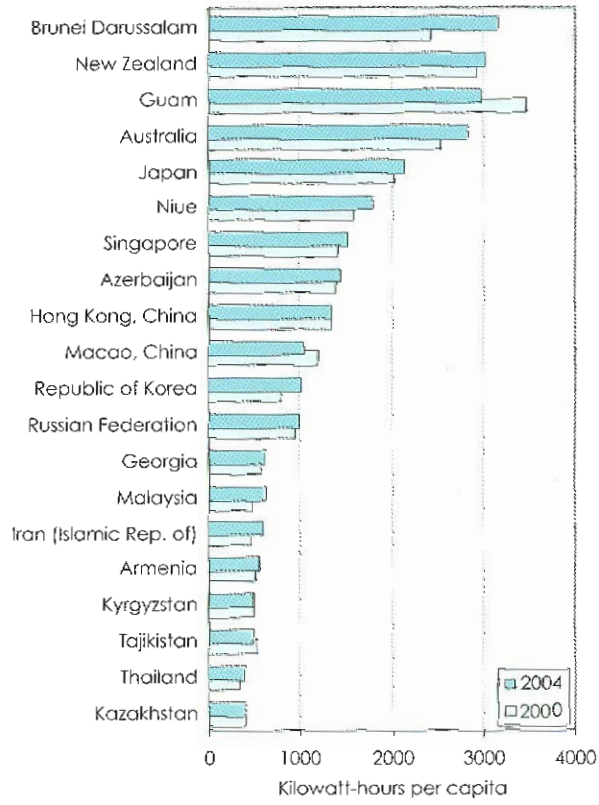


Per capita consumption of electricity in Asia and the Pacific, however, was 291 kilowatt-hours, the lowest except only for Africa. During the period 2000-2004, the Asian and Pacific region also had the highest annual rate of growth in per capita electricity consumption, 3.3 per cent, which is above the world average.

Between 2000 and 2004, per capita electricity consumption increased among all groups of countries within Asia and the Pacific except landlocked developing countries. The least developed countries recorded the highest annual rate of increase, at 8.6 per cent, while Central Asia recorded minor annual growth, at 0.1 per cent. The low- and middle-income countries had nearly 5 per cent annual growth in per capita electricity consumption. The high-income countries, on the other hand, increased consumption at an annual rate of just above 2 per cent.

Per capita electricity consumption varies widely in the countries of Asia and the Pacific. Although electricity production in China is the highest in the region, per capita consumption in the country is quite low, at 189 kilowatt-hours in 2004. Brunei Darussalam has the highest level of per capita consumption, at 3,167 kilowatt-hours, which is above the level of the developed countries of the region and more than ten times the average consumption level of the region. Other large per capita consumers are Guam; Niue; Singapore; Azerbaijan; Hong Kong, China; and Macao, China.

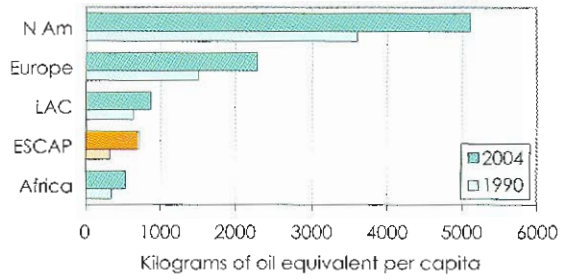
Figure 27.2 The 20 Asian and Pacific countries/areas with the highest per capita electricity consumption, 2000 and 2004



Between 1990 and 2004, total energy consumption per capita increased in all regions of the world. With an annual growth rate of 5.7 per cent, Asia and the Pacific more than doubled its energy consumption per capita, measured in kilograms of oil equivalent, during this period. Africa and Europe increase per capita energy consumption by over 50 per cent, whereas the increase in Latin America and the Caribbean and North America was just over 40 per cent. All of these regions had an annual growth rate of about 3 per cent in per capita energy consumption between 1990 and 2004.

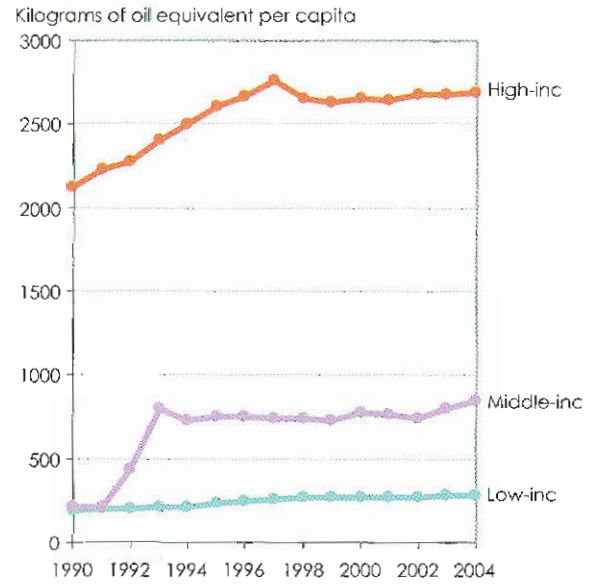
Within Asia and the Pacific, high-income countries consume about ten times as much energy per capita as low-income countries and three times

Figure 27.3 Energy consumption per capita in the regions of the world, 1990 and 2004



as much as middle-income countries. Small island developing States are an exception in the region in that per capital energy consumption decreased between 1990 and 2004.

Figure 27.4 Energy consumption per capita in selected Asian and Pacific country/area groupings, 1990-2004



Between 1990 and 2004, per capita energy consumption in the Republic of Korea and Macao, China, nearly doubled; in China and Hong Kong, China, it almost quadrupled. Mongolia was the only country in East and North-East Asia in which per capita energy consumption fell.

The most dramatic increase took place in the Islamic Republic of Iran, which recorded per capita energy consumption of 26 kilograms of oil equivalent in 1990. With an annual growth rate of over 34.1 per cent, per capita energy consumption in this country had reached 1,604 kilograms of oil equivalent by 2004. Cambodia, Samoa and Viet Nam were the other countries where per capita energy consumption increased at striking rates. In 1990, Cambodia consumed 3 kilograms of oil equivalent per person; by 2004, the consumption level was 165, and the most significant increase took place between 2000 and 2004, when per capita energy consumption grew at an annual rate of nearly 78 per cent. In the same period, energy consumption increased in Samoa from 8 to 249 kilograms of oil equivalent and in Viet Nam from 15 to 547.

Energy use per unit of GDP indicates the energy intensity of production. A declining trend for this indicator can be due to changes in the structure of the economy or to an increase in energy efficiency. In all regions of the world, energy

Figure 27.5 Average annual growth rate of energy supply, apparent consumption per unit of GDP in the regions of the world, 2000-2004

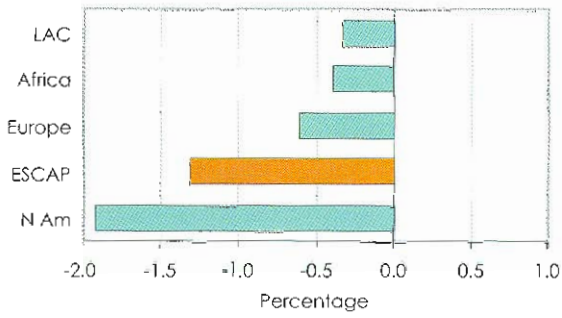
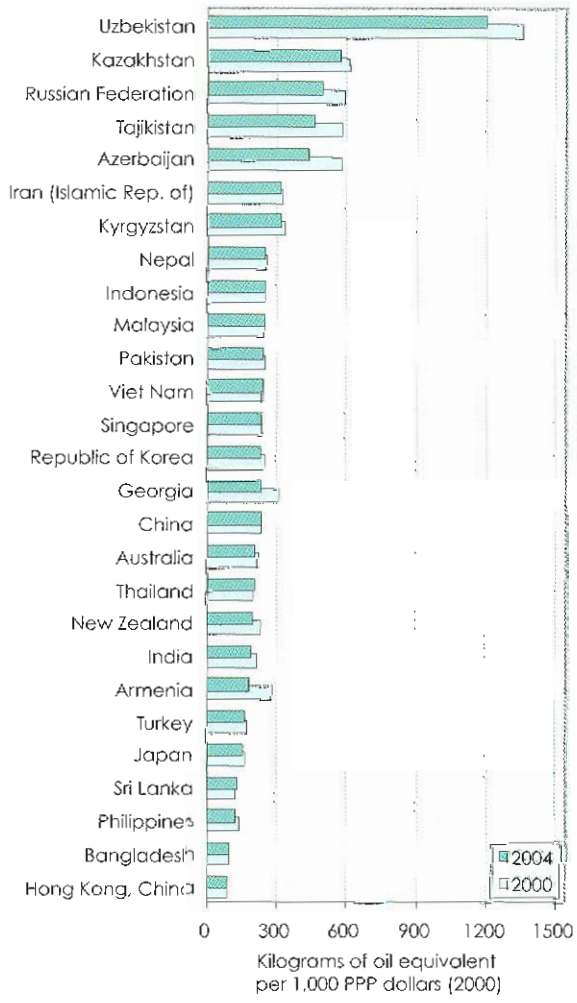


Figure 27.6 Energy supply, apparent consumption per unit of GDP in Asia and the Pacific, 2000 and 2004



intensity declined between 1990 and 2004. Asia and the Pacific experienced the second highest decline in the world, at an annual rate of 1.3 per cent between 2000 and 2004.

During the same period, all groups of countries within Asia and the Pacific reduced energy intensity, with the exception of small island developing States and the ASEAN region. Among Asian and Pacific countries for which energy intensity data is available, Uzbekistan recorded the highest figures, at 1,203 kilograms of oil equivalent per $1,000 of GDP in 2004. This figure is about eight times the level of energy intensity in Japan and could be due to low level of economic activity in this country. Hong Kong, China, on the other hand, has the lowest energy intensity figure for 2004, at 85. This reflects the importance of services and the small contribution of industry in Hong Kong, China.

Energy consumption per capita (kilograms of oil equivalent): Apparent consumption per capita of commercial energy, derived from the formula "production + imports - exports - bunkers +/- stock changes". Excludes consumption by the energy sector and all inputs into energy conversion, such as fuels used by industrial/self-producers of thermal electricity. *Aggregates:* Averages are calculated using total population as weight. *Source:* *Energy Statistics Yearbook 2004* (online database, accessed in September 2007) and *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Average annual energy consumption per capita growth rate (percentage): The average rate of change in energy supply, apparent consumption per capita, calculated as an arithmetic mean for a range-year period. Expressed as a percentage. *Source:* Calculated by ESCAP using data from *Energy Statistics Yearbook 2004* (online database, accessed in September 2007) and *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Energy supply, apparent consumption per unit of GDP (kilograms of oil equivalent per 1,000 PPP dollars): Apparent consumption of commercial energy measured in units of oil equivalent per $1,000 of GDP converted from national currencies using purchasing power parity conversion factors, expressed as kilograms of oil equivalent per GDP in constant 2000 prices expressed in 1,000 PPP dollars. *Aggregates:* Averages are calculated using GDP as weight. *Source:* *Energy Statistics Yearbook 2004* (online database, accessed in September 2007).

Average annual energy supply, apparent consumption per unit of GDP growth rate (percentage): The average rate of change in energy supply, apparent consumption per units of GDP, calculated as an arithmetic mean for a range-year period. Expressed as a percentage. *Source:* Calculated by ESCAP using data from *Energy Statistics Yearbook 2004* (online database, accessed in September 2007).

Gross electricity production (million kilowatt-hours): Gross production of electricity, including the consumption by station auxiliaries and any losses in the transformers that are considered integral parts of the station. Included also is total electric energy produced by pumping installations without deduction of electric energy absorbed by pumping. Where reported, includes production from solar, tide, wave, wind, waste, wood and fuel cells *Aggregates:* Sum of individual country values. *Source:* *Energy Statistics Yearbook 2004* (online database, accessed in September 2007).

Average annual gross electricity production growth rate (percentage): The average rate of change in electricity production, calculated as an arithmetic mean for a five-year period. *Source:* Calculated by ESCAP using data from *Energy Statistics Yearbook 2004* (online database, accessed in September 2007).

Household electricity consumption per capita (kilowatt-hours per capita): The annual electricity consumption by households per capita. *Aggregates:* Averages are calculated using total population as weight. *Source:* *Energy Statistics Yearbook 2004* (online database, accessed in September 2007) and *World Population Prospects: The 2006 Revision* Population Database (online database, accessed in July 2007).

Average annual household electricity consumption per capita growth rate (percentage): The average rate of change in household electricity consumption, calculated as an arithmetic mean for a five-year period. *Source:* Calculated by ESCAP using data from *Energy Statistics Yearbook 2004* (online database, accessed in September 2007).

27.1 Energy use

	Energy consumption per capita						Energy supply, apparent consumption per unit of GDP					
	Kilograms of oil equivalent				Average annual growth rate (%)		Kilograms of oil equivalent per 1,000 PPP dollars				Average annual growth rate (%)	
	1990	1995	2000	2004	90-04	00-04	1990	1995	2000	2004	90-04	00-04
East and North-East Asia												
China	167	573	540	653	10.2	4.9	470	320	226	226	-5.1	0.0
DPR Korea			821	823		0.1						
Hong Kong, China	323	505	1 499	1 198	9.8	-5.5	95	94	88	85	-0.8	-0.9
Macao, China	570	688	894	1 112	4.9	5.6						
Mongolia	425	317	335	371	-1.0	2.6						
Republic of Korea	1 932	2 857	3 291	3 519	4.4	1.7	220	241	251	234	0.4	-1.7
South-East Asia												
Brunei Darussalam	1 351	1 989	2 156	2 292	3.8	1.5						
Cambodia	3	3	17	165	31.8	77.7						
Indonesia	299	426	498	461	3.2	-1.9	246	218	244	244	-0.1	0.0
Lao PDR	10	19	28	28	7.4	-0.2						
Malaysia	462	1 044	1 259	1 456	8.5	3.7	228	245	248	243	0.5	-0.5
Myanmar	110	120	401	430	10.3	1.8						
Philippines	300	342	487	404	2.1	-4.6	116	135	139	122	0.4	-3.2
Singapore	1 953	2 764	1 495	1 543	-1.7	0.8	293	308	235	237	-1.5	0.2
Thailand	521	775	793	993	4.7	5.8	175	170	192	204	1.1	1.5
Timor-Leste				22								
Viet Nam	15	202	435	547	29.5	5.9	319	266	236	240	-2.0	0.4
South and South-West Asia												
Afghanistan	24	18	18	19	-1.8	0.6						
Bangladesh	118	199	174	180	3.0	0.8	103	104	94	93	-0.7	-0.3
Bhutan	552	766	1 812	1 718	8.4	-1.3						
India	215	239	231	234	0.6	0.3	257	241	213	186	-2.3	-3.3
Iran (Islamic Rep. of)	26	358	1 401	1 604	34.1	3.4	268	312	321	315	1.2	-0.5
Maldives	23	42	59	80	9.4	7.9						
Nepal	200	268	458	456	6.1	-0.1	293	264	252	249	-1.2	-0.3
Pakistan	196	256	273	296	3.0	2.0	246	246	246	242	-0.1	-0.4
Sri Lanka	185	237	451	501	7.4	2.7	138	114	121	124	-0.8	0.6
Turkey	554	625	779	793	2.6	0.5	173	172	177	163	-0.4	-2.0
North and Central Asia												
Armenia		312	364	505	0.4	8.5	427	288	278	183	-5.9	-9.9
Azerbaijan		862	866	963	9.5	2.7	539	929	578	436	-1.5	-6.8
Georgia		122	495	435	8.9	-3.2		441	307	231	-9.8	-6.9
Kazakhstan		1 874	1 698	2 333	7.6	8.3		914	614	568	-4.7	-1.9
Kyrgyzstan		165	390	456	8.9	4.0		439	332	313	-5.0	-1.5
Russian Federation		2 990	2 918	2 845	3.8	-0.6		664	599	494	-2.0	-4.7
Tajikistan		280	424	475	5.8	2.9		660	581	456	-6.7	-5.9
Turkmenistan		1 864	2 155	2 135	6.5	-0.2		1 105	942			
Uzbekistan		795	1 597	1 559	20.8	-0.6		1 349	1 359	1 203	-1.0	-3.0
Pacific												
American Samoa	155											
Cook Islands			197	366		16.7						
Fiji	318	316	358	450	2.5	5.9						
French Polynesia			283	1 049		38.7						
Guam	781	908	965	823	0.4	-3.9						
Kiribati				100								
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia	576	612	1 102	1 026	4.2	-1.8						
Niue			678	762		2.9						
Northern Mariana Is.												
Palau												
Papua New Guinea	454	408	380	367	-1.5	-0.9						
Samoa	8	8	230	249	27.8	2.0						
Solomon Islands	221	111	210	196	-0.9	-1.7						
Tonga		381	389	395	3.3	0.4						
Tuvalu												
Vanuatu				117								
ESCAP Developed Economies												
Australia	3 224	3 342	3 681	3 615	0.8	-0.5	254	233	225	207	-1.5	-2.1
Japan	2 157	2 529	2 394	2 383	0.7	-0.1	152	159	160	154	0.1	-1.0
New Zealand	1 248	2 691	2 570	2 745	5.8	1.7	238	235	227	197	-1.3	-3.5
ESCAP	325	653	670	707	5.7	1.3	253	270	237	225	-0.8	-1.3
LLDC	336 [1]	656	841	903	7.3	1.8		936	673	559	1.7	-4.5
LDC	112	163	223	236	5.5	1.3	129	127	116	113	-0.9	-0.6
SIDS	929	1 191	762	715	-1.9	-1.6	293	308	235	237	-1.5	0.2
ASEAN	276	424	539	567	5.3	1.3	208	203	213	213	0.2	0.0
SAARC	201	234	234	239	1.2	0.5	243	229	206	184	-2.0	-2.8
Central Asia	443 [1]	959	1 258	1 403	8.6	2.8		950	760	629	1.5	-4.6
Low-income	187	236	275	285	3.1	0.9	248	250	224	200	-1.5	-2.8
Middle-income	212	756	776	850	10.4	2.3		342	274	257	-2.1	-1.6
High-income	2 121	2 612	2 662	2 698	1.7	0.3	170	178	181	173	0.1	-1.1
Africa	333	381	519	516	3.2	-0.1	296	310	295	291	-0.1	-0.4
Latin America & Carib.	620	802	856	875	2.5	0.6	169	164	163	161	-0.3	-0.3
North America	3 610	3 903	5 171	5 122	2.5	-0.2	278	268	241	223	-1.6	-1.9
Europe	1 491 [1]	1 997	2 182	2 286	3.1	1.2	190	195	173	168	-0.9	-0.6
Other Asia-Pacific		1 476	1 567	1 705	4.1	2.1						
World	600	950	1 057	1 083	4.3	0.6						

[1] Data refer to 1992

27.2 Electricity production and household consumption

	Gross electricity production (Million kilowatt-hours)					Average annual growth rate (%)	Household electricity consumption per capita (Kilowatt-hours)					Average annual growth rate (%)
	2000	2001	2002	2003	2004	00-04	2000	2001	2002	2003	2004	00-04
East and North-East Asia												
China	1 355 600	1 471 657	1 640 481	1 907 380	2 193 736	12.8	132	144	155	173	189	9.4
DPR Korea	19 400	20 200	19 777	21 035	21 974	3.2						
Hong Kong, China	31 329	32 429	34 312	35 506	37 129	4.3	1 344	1 351	1 359	1 383	1 358	0.3
Macao, China	1 571	1 604	1 702	1 796	1 973	5.9	1 186	941	975	982	1 037	-3.3
Mongolia	2 930	3 017	3 112	3 138	3 303	3.0	124	191	290	208	222	15.8
Republic of Korea	295 156	313 963	336 237	352 352	371 011	5.9	793	833	894	939	1 020	6.5
South-East Asia												
Brunei Darussalam	2 842	2 910	3 036	3 169	3 236	3.3	2 420	2 633	2 747	2 951	3 167	7.0
Cambodia	155	104	129	130	130	-4.3						
Indonesia	99 511	95 097	113 245	101 381	103 536	1.0	144	135	156	145	143	-0.2
Lao PDR	1 225	1 250	1 290	1 295	1 295	1.4						
Malaysia	69 210	71 384	74 196	78 427	82 282	4.4	487	528	556	587	609	5.8
Myanmar	5 118	4 689	5 864	6 213	6 437	5.9	28	27	42	43	45	12.0
Philippines	45 327	47 059	48 484	52 897	55 957	5.4	169	174	173	202	192	3.2
Singapore	31 665	33 089	34 664	35 331	36 810	3.8	1 425	1 461	1 525	1 542	1 527	1.7
Thailand	101 577	108 420	115 513	116 984	125 727	5.5	321	344	359	378	395	5.3
Timor-Leste			300	300	300	0.0						
Viet Nam	26 594	30 791	35 796	40 925	46 029	14.7	139	160	179	194	217	11.9
South and South-West Asia												
Afghanistan	480	395	696	826	779	12.9	5	5	6	6	5	2.9
Bangladesh	15 771	17 392	18 665	19 712	21 466	8.0	39	44	47	49	55	8.4
Bhutan	1 810	1 896	1 898	1 900	1 952	1.9	54	52	68	69	69	6.5
India	560 842	578 452	596 543	633 275	665 873	4.4	72	73	77	82	86	4.3
Iran (Islamic Rep. of)	121 314	130 029	140 759	152 569	164 481	7.9	473	494	517	556	591	5.7
Maldives	104	116	126	141	160	11.4	161	184	195	210	231	9.4
Nepal	1 659	1 867	2 123	2 267	2 345	9.0	22	24	25	26	26	4.8
Pakistan	65 751	68 117	72 406	75 682	85 699	6.8	149	155	155	155	178	4.6
Sri Lanka	6 844	6 625	6 951	7 711	8 158	4.5	93	96	96	107	116	5.8
Turkey	124 920	122 725	129 400	140 581	150 698	4.8	350	341	336	354	383	2.3
North and Central Asia												
Armenia	5 958	5 745	5 519	5 501	6 030	0.3	506	482	490	527	543	1.8
Azerbaijan	18 699	18 969	19 543	21 285	21 643	3.7	1 385	1 242	1 265	1 461	1 433	0.9
Georgia	7 424	6 937	7 257	7 116	6 924	-1.7	564	552	534	583	625	2.6
Kazakhstan	51 635	55 350	58 331	63 819	66 942	6.7	395	414	364	377	389	-0.3
Kyrgyzstan	14 917	13 667	11 922	14 025	15 145	0.4	475	362	340	473	483	0.4
Russian Federation	877 766	891 284	891 285	916 286	931 865	1.5	955	971	976	978	990	0.9
Tajikistan	14 247	14 382	15 302	16 509	17 277	4.9	527	460	523	471	478	-2.4
Turkmenistan	9 845	10 610	10 700	10 800	11 470	3.9	272	284	282	281	279	0.6
Uzbekistan	46 840	47 502	49 310	49 400	51 030	2.2	292	287	290	286	292	0.0
Pacific												
American Samoa	133	135	135	136	138	0.9						
Cook Islands	25	26	28	29	30	4.7						
Fiji	520	520	520	526	540	0.9	119	123	122	127	134	3.1
French Polynesia	407	496	507	479	485	4.5						
Guam	1 741	1 736	1 603	1 457	1 589	-2.3	3 478	3 390	3 107	2 829	2 987	-3.7
Kiribati	10	10	10	10	10	0.0						
Marshall Islands												
Micronesia (F.S.)												
Nauru	33	30	30	32	32	-0.8						
New Caledonia	1 645	1 729	1 749	1 758	1 678	0.5						
Niue	3	3	3	3	3	0.0	1 598	1 655	1 706	1 753	1 795	2.9
Northern Mariana Is.												
Palau	171	166	166	171	171	0.0						
Papua New Guinea	1 411	1 390	1 390	1 398	1 399	-0.2	23	23	22	22	21	-1.4
Samoa	91	105	105	106	110	4.9	225	224	222	232	258	3.4
Solomon Islands	33	32	32	33	33	0.0						
Tonga	35	36	36	36	36	0.7						
Tuvalu												
Vanuatu	41	43	43	44	44	1.8						
ESCAP Developed Economies												
Australia	207 757	216 845	226 329	228 045	239 497	3.6	2 548	2 561	2 614	2 629	2 834	2.7
Japan	1 062 737	1 044 930	1 064 101	1 051 104	1 080 124	0.4	2 030	2 021	2 085	2 049	2 143	1.4
New Zealand	38 588	38 749	40 346	40 441	41 813	2.0	2 941	2 968	2 965	2 781	3 026	0.7
ESCAP	5 351 417	5 536 704	5 843 998	6 223 472	6 688 534	5.7	255	260	269	277	291	3.3
LLDC	170 245	174 650	179 746	190 765	199 211	4.0	281	264	263	276	276	-0.5
LDC	26 497	27 899	31 281	32 977	36 061	7.3	30	32	37	39	42	8.6
SIDS	38 068	39 662	41 447	41 990	43 568	3.4	497	507	520	518	513	0.7
ASEAN	383 224	394 793	432 217	436 752	461 439	4.8	179	184	200	207	211	4.2
SAARC	5 958	5 745	5 519	5 501	6 030	0.3	75	77	80	84	90	4.6
Central Asia	169 565	173 162	177 884	188 455	196 461	3.7	498	468	464	496	500	0.1
Low-income	777 373	803 247	834 657	886 163	940 514	4.9	81	83	88	92	98	4.9
Middle-income	2 898 545	3 044 918	3 264 703	3 585 807	3 932 610	7.9	233	242	252	267	280	4.7
High-income	1 675 438	1 688 480	1 744 577	1 751 438	1 815 345	2.0	1 779	1 785	1 844	1 831	1 930	2.1
Africa	435 521	450 099	482 953	508 294	538 981	5.5	120	130	130	137	143	4.5
Latin America & Carib.	1 005 013	996 274	1 024 256	1 070 857	1 125 950	2.9	404	396	392	400	411	0.4
North America	4 658 969	4 455 769	4 652 959	4 672 419	4 773 978	0.6	4 216	4 211	4 379	4 386	4 393	1.0
Europe	3 467 227	3 536 046	3 555 651	3 638 887	3 723 524	1.8	1 403	1 430	1 433	1 480	1 503	1.7
Other Asia-Pacific	527 143	555 065	586 568	614 749	643 927	5.1	1 198	1 249	1 289	1 330	1 345	2.9
World	15 474 972	15 564 937	16 181 295	16 763 895	17 533 383	3.2						

28. Natural disasters

Natural disasters have a profound impact on the quality of life through their destruction of food crops and livestock, and forced dislocation of households and communities. Their toll on lives and the instant poverty they cause are among their most devastating impacts.

The Asian and Pacific region is one of the most vulnerable to natural disasters, experiencing a wide variety of natural hazards, including floods, cyclones, earthquakes, drought, storm surges and tsunamis. The effect of natural hazards on the loss of human lives is directly linked to the poverty level of a given country.

The region accounts for a majority of the total number of deaths caused by natural disasters globally. In 2006, for example, natural disasters claimed 13,276 lives in the Asia and the Pacific (table 28.1). This was twice the number of deaths in Africa — the region with the second highest toll due to natural disasters — and far above the 3,000-plus deaths in Europe. While natural disasters do not recognize borders or distinguish between income levels, in Asia and the Pacific it was the high-income economies that were the least affected in terms of both deaths and the number of persons affected.

According to some estimates, the number of natural disasters has been increasing around the world, but the trends in lives lost and damage caused have changed in recent years due to effective use of technology, communication and transportation systems. Over the past five decades, the average number of deaths caused annually by natural disasters was about 100,000; in contrast, the average over the last 15 years has been about 41,000.

Tropical cyclones occur more frequently in the Asian and Pacific region than in any other part of the world and are usually accompanied by severe flooding.

While cyclones affect most of the Asian and Pacific region, they have taken a particularly high toll on South Asia. Bangladesh is commonly affected by floods and wind storms, which contributed to the high number of deaths in that country during the periods 1996 to 2000 and 2001 to 2005 while affecting over 30 million people. A strong wind storm in April 1991 was largely responsible for the high number of deaths (145,400) in Bangladesh during the period 1991 to 1995. Moreover, severe flooding during the periods 1991 to 1995 and 2001 to 2005 were responsible for a high number of deaths in Pakistan and India.

Geological disasters can be very destructive in terms of human lives, as was the case with the October 2005 earthquake in Pakistan, which claimed more than 70,000 lives and affected another 5 million people. That single disaster accounted for most of the deaths that occurred in Pakistan during the period 2001 to 2005.

According to information from the Centre for Research on the Epidemiology of Disasters (CRED), the highest loss of life in South Asia has been caused by drought. In September 2001, more than a million people were affected by a drought in Sri Lanka, and, during the summer of 2002, more than 300 million people were affected by a severe drought in India.

The December 2004 tsunami claimed the highest number of lives in recent history, as shown by data of affected countries in table 28.1. Consequently, the number of deaths caused by waves and surges ccounts for 61 per cent of the total number of deaths in South-East Asia.

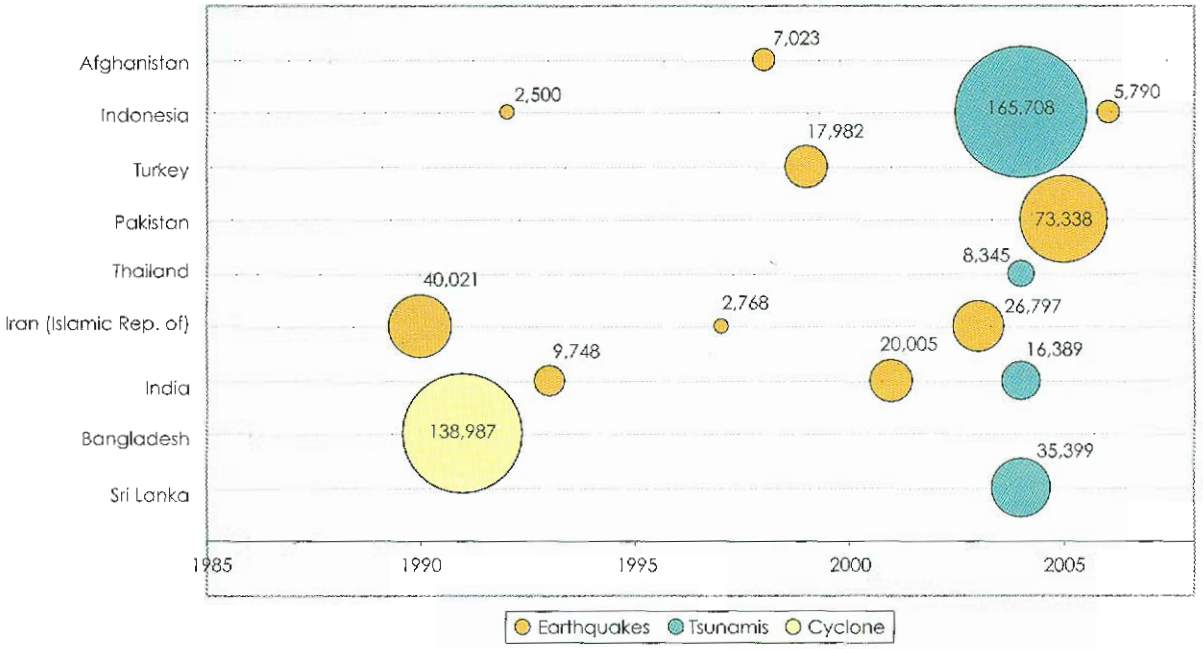
Floods and storms are the second cause of deaths in South-East Asia, mainly affecting Indonesia, Malaysia and the Philippines. Recurrent floods in Indonesia contributed to the high cumulative number of people affected between 2002 and 2006. In the Philippines, storms stand as the most common cause of death as well as the number of people affected by natural disasters.

Drought and wildfires also affect the region. Wildfires in Indonesia in October 1994 affected up to 3 million people, while Cambodia, the Lao People's Democratic Republic, Myanmar and Thailand have suffered the effects of severe drought in recent years, and this has contributed to the high number of people affected during the period 2001 to 2005. The economic impact of wildfires has been particularly negative in many of these countries.

In North-East Asia, typhoons and floods have had the most significant socio-economic impact, accounting for about 80 per cent of deaths and 60 per cent of total damage. Floods throughout China repeatedly affected its citizens during the 1990s. In the summer of 1998, floods affected close to a quarter of a billion people in China, accounting for most of the people affected between 1996 and 2000. Floods were also responsible for a significant death toll in the Democratic People's Republic of Korea in 2006, when 278 people died and another 84,500 people were affected.

In January 1995, a strong earthquake in Japan took the lives of more than 5,000 and affected

Figure 28.1 Major natural disaster events in the Asian and Pacific region, 1988-2007
(number of deaths)



another half-million people. Although the local infrastructure to mitigate the effects of earthquakes is highly developed, the economic cost of the disasters was still considerable.

The pattern of impacts of natural disasters in the Pacific is similar to that of other subregions. Wave/surges, wind storms and floods entail the greatest loss of life. In Fiji, wind storms affected a significant portion of the population throughout the 1990s, and, in Papua New Guinea, a tsunami was responsible for over 2,000 deaths in July 1998. On the other hand, droughts, wild fires and extreme temperatures have affected Australia, as in 1992, when a severe drought affected over 7 million people. Extreme temperatures in subsequent years contributed to the cumulative number of people affected during the period 1991 to 1995, as reported in table 28.2.

Losses caused by natural disasters are particularly damaging in the Asian and Pacific region, depriving countries of resources that could otherwise be used for economic and social development. In some areas, the death toll and damage from such disasters have set social development back years. For this reason, national and regional efforts for natural disaster reduction should be closely linked with poverty alleviation and economic and social development activities. In this context, regional cooperation in disaster management, including infrastructure development, is essential if countries are to be able to cope with the escalating effects. It is also essential in order to help ensure the sustainable economic growth of the region.

Deaths caused by natural disasters (cumulative number over the period): The number of deaths recorded due to natural disasters, expressed as a cumulative number over five-years periods. *Aggregates:* Sum of individual country values. *Source:* Calculated by ESCAP using data from EM-DAT: Emergency Events Database, (online database, accessed on June 2007).

Natural disasters mortality ratio (per 100,000 deaths): The cumulative number of deaths recorded due to natural disasters in a five-year period divided by the number of total deaths of all causes during the same period, expressed per 100,000 deaths. *Aggregates:* Averages are calculated as the sum of natural disasters deaths divided by the sum of total deaths. *Source:* Calculated by ESCAP using data from EM-DAT: Emergency Events Database, (online database, accessed on June 2007) and *World Population Prospects: The 2006 revision* Population Database (online database, accessed on July 2007).

People affected by natural disasters (cumulative number over the period): The total number of people affected by natural disasters over a five-year period. Affected people are people requiring immediate assistance during a period of emergency, such as food, water, shelter, sanitation and immediate medical assistance. The definition includes cases of an infectious disease introduced in a region or a population

that is usually free from that disease. *Aggregates:* Sum of individual country values. *Source:* Calculated by ESCAP using data from EM-DAT: Emergency Events Database, (online database, accessed on June 2007).

People affected by natural disasters (per 100,000 population): The total number of people affected by natural disasters divided by total population, calculated for five-year periods and expressed per 100,000 population. Affected people are people requiring immediate assistance during a period of emergency, such as food, water, shelter, sanitation and immediate medical assistance. The definition includes cases of an infectious disease introduced in a region or a population that is usually free from that disease. *Aggregates:* Averages are calculated as the sum of number of people affected by natural disasters divided by total population. *Source:* Calculated by ESCAP using data from EM-DAT: Emergency Events Database, (online database, accessed on June 2007) and *World Population Prospects: The 2006 revision* Population Database (online database, accessed on July 2007).

28.1 Natural disasters, mortality

	Deaths caused by natural disasters				Natural disasters mortality ratio			
	Cumulative number over the period				Per 100,000 deaths			
	91-95	96-00	01-05	2006	91-95	96-00	01-05	2006
East and North-East Asia								
China	13 458	13 040	5 520	1 863	32	31	13	20
DPR Korea	74	254	344	278	11	28	31	120
Hong Kong, China	120	3	303	0	74	2	164	0
Macao, China	0	0	0	0	0	0	0	0
Mongolia	18	97	34	0	18	109	40	0
Republic of Korea	303	742	375	58	24	59	29	21
South-East Asia								
Brunei Darussalam								
Cambodia	656	484	101	12	107	76	15	9
Indonesia	4 109	3 320	168 896	7 180	53	45	2 334	492
Lao PDR	743	89	2	0	287	38	1	0
Malaysia	385	471	128	9	79	92	23	8
Myanmar	96	90	396	59	4	4	17	12
Philippines	10 706	1 653	3 108	1 487	528	83	153	355
Singapore	0	3	33	0	0	3	32	0
Thailand	675	371	8 908	179	32	16	337	33
Timor-Leste								
Viet Nam	1 683	6 557	1 286	412	70	302	60	94
South and South-West Asia								
Afghanistan	2 807	8 315	5 311	182	156	375	214	34
Bangladesh	145 400	2 611	2 976	109	2 220	43	50	9
Bhutan	39	200	0	0	120	776	0	0
India	20 727	28 605	48 814	698	47	63	103	7
Iran (Islamic Rep. of)	617	3 185	28 393	77	31	175	1 517	20
Maldives	0	0	102	0	0	0	1 123	0
Nepal	3 609	2 335	1 257	157	300	206	113	71
Pakistan	4 510	2 094	75 363	198	76	35	1 292	17
Sri Lanka	118	21	35 646	0	20	3	5 170	0
Turkey	1 341	18 238	457	32	62	899	22	7
North and Central Asia								
Armenia	0	4	1	0	0	3	1	0
Azerbaijan	5	55	0	0	2	20	0	0
Georgia	10	0	7	0	4	0	3	0
Kazakhstan	122	7	54	0	15	1	7	0
Kyrgyzstan	220	34	90	4	123	18	44	10
Russian Federation	367	275	1 278	84	4	3	11	4
Tajikistan	1 606	300	67	25	672	130	31	59
Turkmenistan	0	11	0	0	0	6	0	0
Uzbekistan	10	64	0	0	1	8	0	0
Pacific								
American Samoa			6	0				
Cook Islands	0	19	0	0				
Fiji	22	41	34	4	94	166	130	74
French Polynesia	0	13			0	237		
Guam	1	0	5	0	31	0	120	0
Kiribati	0	0						
Marshall Islands	0	6	0	0				
Micronesia (F.S.)	0	15	48	0	0	442	1 402	0
Nauru								
New Caledonia	0	0	2	0	0	0	33	0
Niue	0	1	1	0				
Northern Mariana Is.								
Palau								
Papua New Guinea	273	2 433	198	15	115	938	69	25
Samoa	13	0	10	0	234	0	195	0
Solomon Islands	4	0	0	0	23	0	0	0
Tonga	0	0	0	0	0	0	0	0
Tuvalu	0	0						
Vanuatu	6	44	4	0	105	736	69	0
ESCAP Developed Economies								
Australia	71	55	40	2	12	8	6	1
Japan	5 849	218	380	152	133	5	7	14
New Zealand	0	4	6	0	0	3	4	0
ESCAP	220 773	96 377	389 984	13 276	153	66	256	42
LLDC	9 179	11 511	6 816	368	153	180	103	27
LDC	153 373	14 168	10 159	519	1 213	112	79	20
SIDS	319	2 575	443	19	80	595	94	19
ASEAN	19 053	13 038	182 858	9 338	107	74	1 017	256
SAARC	177 210	44 181	169 469	1 344	293	72	266	10
Central Asia	1 973	475	219	29	69	16	7	5
Low-income	182 436	54 362	136 239	2 149	270	79	192	15
Middle-income	31 993	40 957	252 600	10 915	45	58	342	71
High-income	6 344	1 038	1 144	212	95	15	15	13
Africa	25 689	47 837	29 501	6 277	60	101	56	57
Latin America & Carib.	18 083	56 034	13 152	274	119	362	81	8
North America	1 896	1 643	2 500	280	15	13	19	10
Europe	943	1 926	47 327	3 025	3	6	156	49
Other Asia-Pacific			858	36			25	5
World	267 580	206 855	483 322	23 168	105	76	168	41

28.2 Natural disasters, affected population

	People affected by natural disasters							
	Cumulative number over the period				Per 100,000 population			
	91-95	96-00	01-05	2006	91-95	96-00	01-05	2006
East and North-East Asia								
China	619 062 923	598 872 265	685 316 144	93 594 012	10 412	9 595	10 571	7 086
DPR Korea	6 202 500	3 978 687	468 981	84 500	5 882	3 537	401	356
Hong Kong, China	7 901	748	4 989	0	26	2	14	0
Macao, China	3 986	0	1	0	200	0	0	0
Mongolia	100 000	1 076 169	1 295 659	0	858	8 823	10 228	0
Republic of Korea	38 527	222 086	605 778	4 500	17	96	255	9
South-East Asia								
Brunei Darussalam	0	0	0	0				
Cambodia	1 309 400	10 434 375	4 689 182	38 000	2 442	17 033	6 952	268
Indonesia	4 647 200	2 916 749	1 483 913	3 317 003	485	283	135	1 449
Lao PDR	2 429 106	899 685	603 000	0	10 923	3 584	2 197	0
Malaysia	31 773	29 411	115 447	36 518	32	26	93	140
Myanmar	479 246	187 418	94 466	70 106	228	84	40	145
Philippines	20 937 193	11 037 617	7 189 929	4 960 224	6 381	3 019	1 771	5 750
Singapore	0	2 033	205	0	0	11	1	0
Thailand	10 369 760	9 032 008	10 489 861	3 234 786	3 688	3 039	3 378	5 099
Timor-Leste	0	0	3 894	8 730	0	0	81	784
Viet Nam	1 858 617	20 140 610	6 453 640	1 521 133	527	5 242	1 562	1 765
South and South-West Asia								
Afghanistan	259 604	315 081	3 153 379	308 330	326	317	2 721	1 182
Bangladesh	54 564 688	30 035 307	41 060 559	1 505 899	9 020	4 478	5 559	965
Bhutan	66 094	1 000	0	0	2 522	38	0	0
India	184 722 228	166 725 019	489 501 667	6 462 889	4 031	3 302	8 905	561
Iran (Islamic Rep. of)	781 947	332 544	38 993 302	171 304	260	103	11 460	244
Maldives	23 849	0	27 214	0	2 027	0	1 901	0
Nepal	701 047	297 436	1 178 195	80 000	680	255	905	289
Pakistan	21 072 431	2 912 664	15 375 445	2 405	3 457	423	2 014	1
Sri Lanka	2 131 381	1 530 534	3 559 466	0	2 406	1 656	3 754	0
Turkey	837 026	4 469 081	641 695	222	276	1 354	181	0
North and Central Asia								
Armenia	0	319 144	0	0	0	2 043	0	0
Azerbaijan	1 658 800	787 474	31 500	0	4 384	1 964	76	0
Georgia	4 050	200	22 646	600	15	1	99	14
Kazakhstan	30 000	611 373	65 306	0	37	800	87	0
Kyrgyzstan	195 306	9 294	3 361	9 075	865	39	13	173
Russian Federation	298 500	0	0	0	40	0	0	0
Tajikistan	144 908	262 116	423 923	29 155	517	871	1 326	439
Turkmenistan	420	0	0	0	2	0	0	0
Uzbekistan	50 400	148	601 500	0	46	0	466	0
Pacific								
American Samoa	0	0	23 063	0	0	0	7 545	0
Cook Islands	0	900	1 352	0	0	1 063	1 834	0
Fiji	162 003	268 727	35 600	392	4 327	6 810	871	47
French Polynesia	0	511	0	0	0	45	0	0
Guam	5 613	6 420	15 644	0	795	849	1 918	0
Kiribati	0	84 000	0	0	0	20 699	0	0
Marshall Islands	6 000	218	0	0	2 404	84	0	0
Micronesia (F.S.)	0	2 689	8 631	0	0	500	1 588	0
Nauru	0	0	0	0				
New Caledonia	0	0	1 537	0	0	0	136	0
Niue	0	297	702	0	0	2 912	8 177	0
Northern Mariana Is.	0	0	0	0				
Palau	0	0	0	0				
Papua New Guinea	361 242	570 204	60 369	13 921	1 616	2 233	208	224
Samoa	88 000	0	0	0	10 651	0	0	0
Solomon Islands	88 500	380	1 525	0	5 176	19	68	0
Tonga	0	6 571	16 500	0	0	1 342	3 342	0
Tuvalu	150	0	0	0	310	0	0	0
Vanuatu	13 165	16 500	68 312	0	1 613	1 807	6 677	0
ESCAP Developed Economies								
Australia	14 977 281	658 254	22 908	3 211	17 019	704	23	16
Japan	747 046	775 503	874 950	25 652	120	123	137	20
New Zealand	475	2 890	6 151	1 200	3	15	31	29
ESCAP	951 470 286	869 832 340	1 314 591 491	115 483 767	5 542	4 726	6 731	2 863
LLDC	5 635 685	4 578 920	7 355 823	426 560	1 052	784	1 166	320
LDC	60 022 849	42 271 182	50 879 726	2 011 065	5 532	3 495	3 828	715
SIDS	748 522	959 450	264 548	23 043	1 342	1 529	378	155
ASEAN	42 062 295	54 679 906	31 119 643	13 177 770	1 813	2 172	1 150	2 338
SAARC	263 541 322	201 817 041	553 855 925	8 359 523	4 340	3 003	7 541	542
Central Asia	2 083 884	1 989 749	1 148 236	38 830	608	564	315	52
Low-income	274 539 223	237 844 593	564 968 745	10 134 143	3 965	3 109	6 773	579
Middle-income	661 150 084	630 318 105	748 088 529	105 315 061	7 153	6 483	7 383	5 086
High-income	15 780 829	1 668 445	1 532 163	34 563	1 576	162	145	16
Africa	51 596 935	29 134 737	100 488 133	8 232 323	1 594	794	2 436	933
Latin America & Carib.	9 506 363	25 788 983	27 254 829	1 221 525	406	1 016	1 002	216
North America	1 306 531	3 996 081	1 510 270	84 699	89	259	93	25
Europe	6 605 035	7 498 605	2 059 636	50 524	234	264	72	9
Other Asia-Pacific	216 239	525 692	706 342	2 745	52	101	108	2
World	1 020 701 389	936 776 438	1 446 610 701	125 075 583	3 718	3 173	4 589	1 915

Statistical Methods

Aggregation and imputation

The tables in this *Yearbook* contain country group composites for all indicators for which aggregates can be calculated. To facilitate comparison between the Asian and the Pacific region and the rest of the world, aggregates are included for Asia and the Pacific, Africa, Latin America and the Caribbean, North America, Europe and the World. In addition, aggregates appear for countries within Asia and the Pacific included in several classifications. These classifications comprise countries with special needs, i.e. the least developed countries, landlocked developing countries and small island developing States, the regional associations ASEAN and SAARC, the Central Asian subregion, and the three levels (low, middle and high) of the World Bank income classification of countries.

For a large number of indicators, some values are missing from country time series. Aggregates should therefore be treated as approximations of actual, unknown totals or averages. In the calculation of aggregates, missing values have been dealt with in the following way.

First, aggregates are not reported for a given year if the population (for social and environmental indicators) or the GDP (for economic indicators) of countries with available values for that year covers less than two thirds of the total population or GDP of the country group under consideration.

Second, missing country values have been imputed by applying the following methodology. If values are available for both an earlier and a later year than the aggregate is calculated for, the missing value has been imputed using linear interpolation. A missing country value for a year preceding the earliest year for which a value is available has been imputed using the value from the earliest year. Similarly, a missing country value for a year following the latest year for which a value is available has been imputed by using the value of the latest year. For countries with only one data point for the whole period, this value has been used for all missing years. No information is used from other countries for imputing the missing values. If imputation has been used to derive aggregates, information is given as part of the metadata at the end of each chapter.

There are two types of aggregates. The first type is straights sums of actual country values and, in some cases, imputed country values where actual values are missing for that particular year. The second type is weighted averages of actual country values and again, in some cases, imputed country values. The weights are chosen for each indicator separately and are mentioned in the metadata description of each indicator. For ratios, for example, denominators are used as weights. In the case of growth rates, either the weighted average of country growth rates or the growth rate from the time series of group totals is calculated.

Growth rates

Growth rates are presented as percentages. Rates of change from one period to the next are calculated as proportional changes from the earlier period. Rates of change over several periods are calculated as annual averages using the geometric growth model. The geometric growth rate uses discrete compounding. Although continuous growth, as modelled by the exponential growth rate, may be more realistic, many economic phenomena are measured only on an annual basis, in which case the annual compound model is appropriate. If the underlying data are measured as indicator levels, the formula for the average annual percentage change in indicator P over n periods is

$$r = \left[\left(P_n / P_1\right)^{1/n} - 1\right] \cdot 100.$$

Note that it does not take into account the intermediate values of the series. However, if the underlying data are measured as annual changes, the formula becomes

$$r = \left\{\left[(1 + g_0)(1 + g_1)\ldots(1 + g_n)\right]^{1/n} - 1\right\} \cdot 100,$$

where $g_0, g_1, \ldots, g_n$ denote the annual changes from the year 1 to n.

List of countries and groupings

Time series data are presented for the 58 members and associate members of ESCAP according to geographical classification, with the exception of developed economies, which are grouped separately. Throughout the *Yearbook*, countries and territories are referred to by a shortened version of their official name or, for some of the graphs presented, their ISO code.

List of ESCAP members and associate members (ISO and shortened version of names are indicated between parentheses).

East and North-East Asia: China (CHN); Democratic People's Republic of Korea (DPR Korea, PRK); Hong Kong, China (HKG); Macao, China (MAC); Mongolia (MNG); Republic of Korea (KOR).

South-East Asia: Brunei Darussalam (BRN); Cambodia (KHM); Indonesia (IDN); Lao People's Democratic Republic (Lao PDR, LAO); Malaysia (MYS); Myanmar (MMR); Philippines (PHL); Singapore (SGP); Thailand (THA); Timor-Leste (TML); Viet Nam (VNM).

South and South-West Asia: Afghanistan (AFG); Bangladesh (BGD); Bhutan (BTN); India (IND); Iran (Islamic Republic of) (IRN); Maldives (MDV); Nepal (NPL); Pakistan (PAK); Sri Lanka (LKA); Turkey (TUR).

North and Central Asia: Armenia (ARM); Azerbaijan (AZE); Georgia (GEO); Kazakhstan (KAZ); Kyrgyzstan (KGZ); Russian Federation (RUS); Tajikistan (TJK); Turkmenistan (TKM); Uzbekistan (UZB).

Pacific: American Samoa (ASM); Cook Islands (COK); Fiji (FJI); French Polynesia (PYF); Guam (GUM); Kiribati (KIR); Marshal Islands (MHL); Micronesia (Federated States of) (Micronesia (F.S.), FSM); Nauru (NRU); New Caledonia (NCL); Niue (NIU); Northern Mariana Islands (Northern Mariana Is., MNP); Palau (PLW); Papua New Guinea (PNG): Samoa (WSM); Solomon Islands (SLB); Tonga (TON); Tuvalu (TUV); Vanuatu (VUT).

ESCAP Developed Economies: Australia (AUS); Japan (JPN); New Zealand (NZL).

Country groupings

Shortened names for country groupings are indicated between parentheses.

ESCAP: Members and associate members of ESCAP as per the list above.

Landlocked developing countries (LLDC): Afghanistan; Armenia; Azerbaijan; Bhutan; Kazakhstan; Kyrgyzstan; Lao PDR; Mongolia; Nepal; Tajikistan; Turkmenistan; Uzbekistan.

Least developed countries (LDC): Afghanistan; Bangladesh; Bhutan; Cambodia; Kiribati; Lao PDR; Maldives; Myanmar; Nepal; Samoa; Solomon Islands; Timor-Leste; Tuvalu; Vanuatu.

Small Island Developing States (SIDS): American Samoa; Cook Islands; Fiji; French Polynesia; Guam; Kiribati; Maldives; Marshall Islands; Micronesia (F.S.); Nauru; New Caledonia; Niue; Northern Mariana Is.; Palau; Papua New Guinea; Samoa; Singapore; Solomon Islands; Timor-Leste; Tonga; Tuvalu; Vanuatu.

Association of Southeast Asian Nations (ASEAN): Brunei Darussalam; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Thailand; Viet Nam.

South Asian Association for Regional Cooperation (SAARC): Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; Sri Lanka.

Central Asia (C Asia): Armenia; Azerbaijan; Georgia; Kazakhstan; Kyrgyzstan; Tajikistan; Turkmenistan; Uzbekistan.

The classification by income group follows the definition of the World Bank: Economies are divided according to 2006 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, $905 or less; lower middle income, $906-$3,595; upper middle income, $3,596-$11,115; and high income, $11,116 or more. Aggregates are calculated for ESCAP countries for the three income groups:

Low-income economies (Low-inc): Afghanistan; Bangladesh; Cambodia; Democratic People's Republic of Korea; India; Kyrgyzstan; Lao People's Democratic Republic; Mongolia; Myanmar; Nepal; Pakistan; Papua New Guinea; Solomon Islands; Tajikistan; Timor-Leste; Uzbekistan; Viet Nam

Middle-income economies (Middle-inc): American Samoa; Armenia; Azerbaijan; Bhutan; China; Fiji; Georgia; Indonesia; Iran (Islamic Republic of); Kazakhstan; Kiribati; Malaysia; Maldives; Marshall Islands; Micronesia (Federated States of); Northern Mariana Islands; Palau; Philippines; Russian Federation; Samoa; Sri Lanka; Thailand; Tonga; Turkey; Turkmenistan; Vanuatu.

High-income economies (High-inc): Australia; Brunei Darussalam; French Polynesia; Guam; Hong Kong, China; Japan; Macao, China; New Caledonia; New Zealand; Republic of Korea; Singapore.

For comparative purposes, aggregates are also presented for the world major regions as follows:

Africa: Algeria; Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African; Republic; Chad; Comoros; Congo; Cote d'Ivoire; Democratic Republic of the Congo; Djibouti; Egypt; Equatorial Guinea; Eritrea; Ethiopia; Former Ethiopia; Gabon, Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia: Libyan Arab Jamahiriya; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mayotte; Morocco; Mozambique; Namibia; Niger; Nigeria; Réunion; Rwanda; Saint Helena; Sao Tome and Principe;

Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Sudan; Swaziland; Tanzania (United Republic of); Togo; Tunisia; Uganda; Western Sahara; Zambia; Zimbabwe.

Latin America and Caribbean (LAC): Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bolivia; Brazil; British Virgin Islands; Cayman Islands; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Falkland Islands (Malvinas); French Guiana; Grenada; Guadeloupe; Guatemala; Guyana; Haiti; Honduras; Jamaica; Martinique; Mexico; Montserrat; Netherlands Antilles; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; Turks and Caicos Islands; United States Virgin Islands; Uruguay; Venezuela (Bolivarian Republic of).

North America (N Am): Bermuda; Canada; Greenland; Saint Pierre and Miquelon; United States.

Europe: Albania; Andorra; Austria; Belarus; Belgium; Bosnia and Herzegovina; Bulgaria; Channel Islands; Croatia; Czech Republic; Denmark; Estonia; Faeroe Islands; Finland; France; Germany; Gibraltar; Greece; Guernsey; Holy See; Hungary; Iceland; Ireland; Isle of Man; Italy; Jersey; Kosovo; Latvia; Liechtenstein; Lithuania; Luxembourg; Malta; Monaco; Montenegro; Netherlands; Norway; Poland; Portugal; Republic of Moldova; Romania; San Marino; Serbia; Slovakia; Slovenia; Spain; Svalbard and Jan Mayen Islands; Sweden; Switzerland; The former Yugoslav Republic of Macedonia; Ukraine; United Kingdom of Great Britain and Northern Island.

Other Asia-Pacific: Bahrain; Cyprus; Iraq; Israel; Jordan; Kuwait; Lebanon; Norfolk Island; Occupied Palestinian Territories; Oman; Pitcairn; Qatar; Saudi Arabia; Syrian Arab Republic; Taiwan Province of China; Tokelau; United Arab Emirates; Wallis and Futuna Islands; Yemen.

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List of abbreviations and acronyms

APRAD	Asia-Pacific Road Accident Database
ART	Antiretroviral therapy
ASEAN	Association of Southeast Asian Nations
BOD	Biochemical oxygen demand
CRED	Centre for Research on the Epidemiology of Disasters
CO_2	Carbon dioxide
DEL	Direct Exchange Line
DOTS	Directly Observed Treatment Short-Course
DPT3	Diphtheria toxoid, tetanus toxoid and pertussis vaccine third dose
EDGAR	Emission Database for Global Atmospheric Research
EM-DAT	Emergency Events Database
ESCAP	Economic and Social Commission for Asia and the Pacific
FDI	Foreign direct investment
GDI	Gross domestic investment
GDP	Gross domestic product
GFCF	Gross fixed capital formation
GNI	Gross national income
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICT	Information and Communication Technology
ILO	International Labour Organization
IMF	International Monetary Fund
IUD	Intrauterine device
KILM	Key Indicators of the Labour Market
LDC	Least developed countries
LLDC	Landlocked developing countries
MDG	Millennium Development Goals
MMR	Maternal mortality ratio
NCHS	National Center for Health Statistics
N_2O	Nitrous oxide
ODP	Ozone-depleting potential
PM10	Particulate Matter 10 microns
PPP	Purchasing power parity
PSTN	Public Switched Telephone Network
RIVM	The National Institute for Public Health and the Environment
SAARC	South Asian Association for Regional Cooperation
SARS	Severe Acute Respiratory Syndrome
SIDS	Small Island Developing States
SO_2	Sulphur dioxide
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
WHO	World Health Organization

List of online data sources

1.	Asian Development Bank, *Key Indicators 2007*	http://www.adb.org/
2.	Asia-Pacific Road Accident Database (APRAD)	http://www.unescap.org/ttdw/
3.	Energy Statistics Yearbook 2004	http://unstats.un.org/
4.	EM-DAT: Emergency Events Database	http://www.emdat.be/
5.	Food and Agriculture Organization, FAO Information system on Water and Agriculture	http://faostat.fao.org/
6.	International Labour Organization, *Key Indicators of the Labour Market Fifth Edition*	http://www.ilo.org/
7.	International Monetary Fund, *Balance of Payment Statistics*	http://www.imf.org
8.	International Monetary Fund, *International Financial Statistics*	http://www.imf.org
9.	International Monetary Fund, World Economic Outlook Database	http://www.imf.org
10.	International Telecommunication Union, ICT Statistics Database	http://www.itu.int
11.	Joint United Nations Programme on HIV/AIDS, *2006 Report on the global AIDS epidemic*	http://www.who.int/
12.	National Accounts Main Aggregates Database	http://unstats.un.org/unsd
13.	Organization for Economic Co-operation and Development, Development Database on Aid from DAC Members	http://www.oecd.org
14.	United Nations Conference on Trade and Development, Foreign Direct Investment	http://www.unctad.org/
15.	United Nations Conference on Trade and Development, *Handbook of Statistics*	http://www.unctad.org/
16.	United Nations Environment Programme, Emission Database for Global Atmospheric Research (EDGAR 3.2)	http://geodata.grid.unep.ch
17.	UNESCO Institute for Statistics, Data Centre	http://www.uis.unesco.org
18.	United Nations Common database	http://unstats.un.org/unsd
19.	United Nations Millennium Development Goals Indicators	http://mdgs.un.org/
20.	World Health Organization, Causes of Death database	http://www.who.int/
21.	World Health Organization, Suicide statistics	http://www.who.int/
22.	World Health Organization, WHO Global Health Atlas	http://www.who.int/
23.	World Health Organization, WHO Statistical Information System	http://www.who.int/
24.	World Health Organization, *World Malaria Report 2005*	http://www.who.int/
25.	World Bank, *World Development Indicators*	http://www.worldbank.org/
26.	*World Population Prospects, The 2006 revision* Population Database	http://esa.un.org/unpp
27.	World Tourism Organization, Tourism statistics	http://www.unwto.org/

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Printed in Bangkok
December 2007 – 2,880

United Nations publication
Sales No. B.08.II.F.1
Copyright © United Nations 2007
ISBN: 978-92-1-019241-5
ISSN: 0252-3655
ST/ESCAP/2475

9 789210 192415