

Energy and Environment

Australia, People's Republic of China (PRC), India, and Indonesia are the key **energy producers** in the region. Most economies for which data are available have recorded improvements in **energy productivity** (i.e., GDP per unit of energy use) since 1995. The major emitters of **nitrous oxide**—Australia, PRC, India, Indonesia, and Pakistan—are experiencing rising emissions of this greenhouse gas. **Deforestation** is proceeding at a rate of between 1% and 3% per year in many economies for which data are available, although the PRC and Viet Nam are reporting important gains in the regeneration of forests.

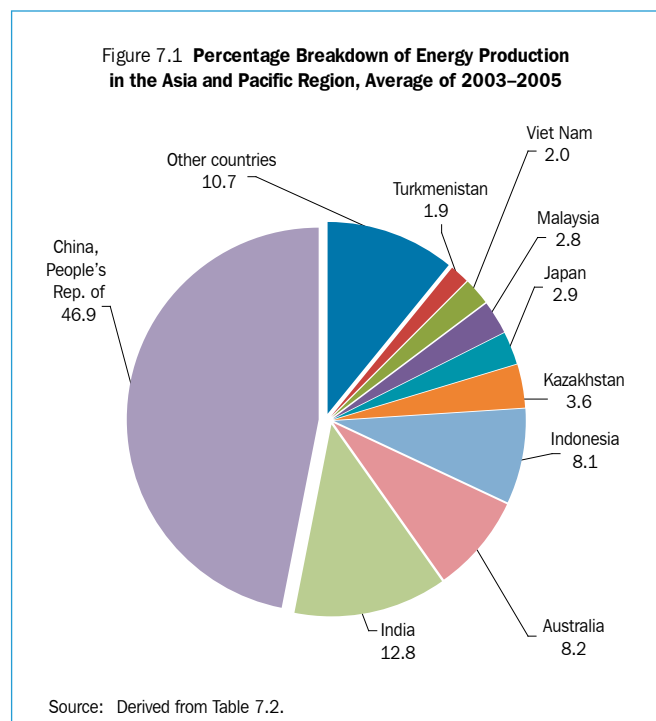
Introduction

Energy here covers all forms of solid, liquid, and gas fuels; and electricity generated by nuclear, wind, hydro, and solar power. (Electricity generated by solid, liquid, and gas fuels is excluded to avoid double counting.) The different forms of power are converted to a common unit—kilo-tons (kt) of oil equivalent—so that they can be represented by a single figure for each economy.

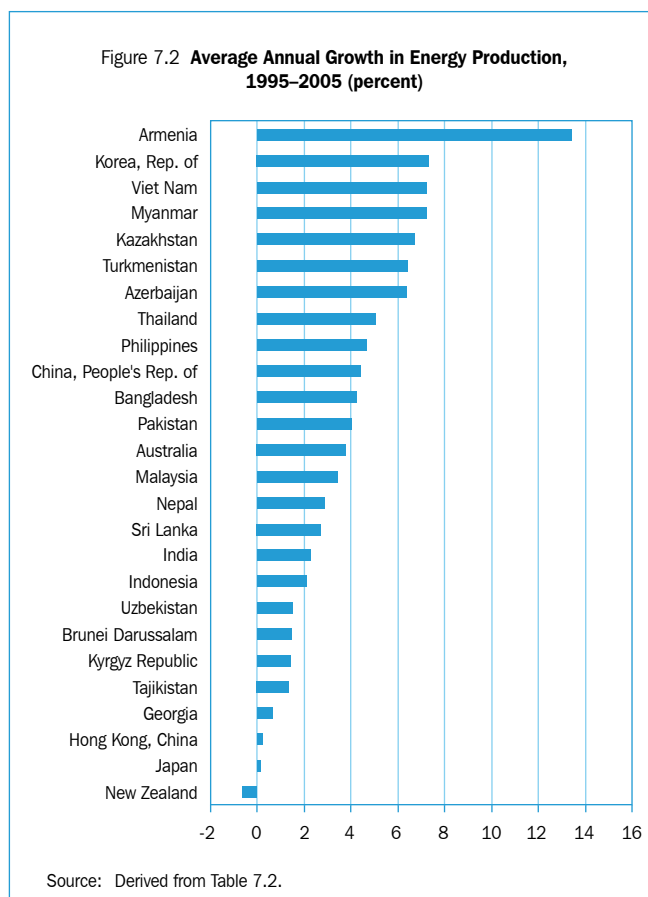
The **environment** indicators shown here refer to land use, air and water pollution, and forest resources. Asia, particularly South East Asia, is a major source of tropical hardwoods. In many of the region's economies, forest resources are being depleted through unsustainable logging; or forests are being cleared for agriculture and other land uses.

Key Trends

Figure 7.1 shows energy production in the Asia and Pacific region. The People's Republic of China (PRC) is clearly the largest producer, with coal being its main energy source. Australia, India, and Indonesia are the other important energy producers in the region.

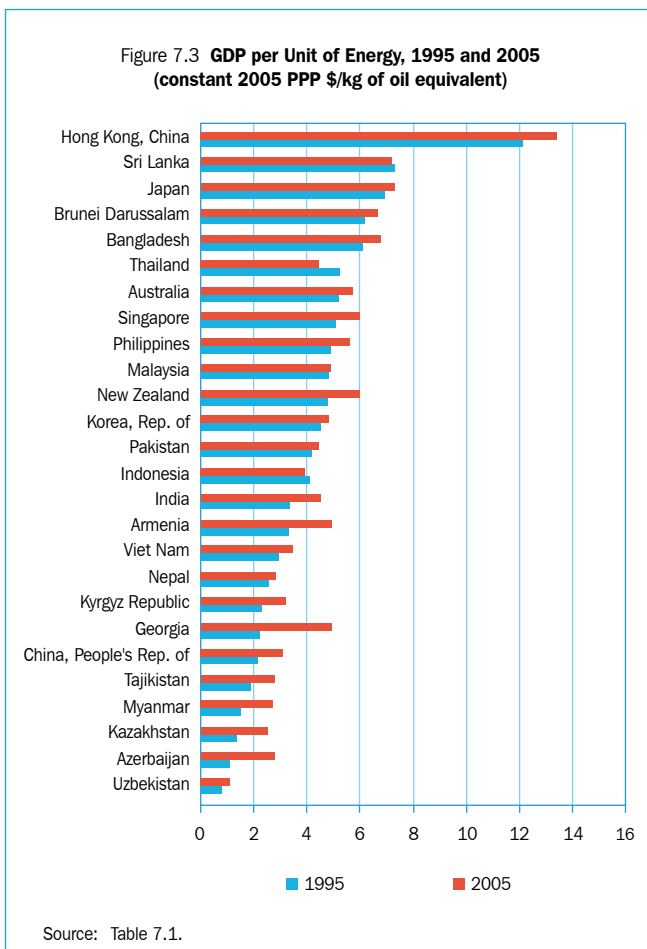


Annual average rates of growth in energy production over the period 1995–2005 are shown in Figure 7.2.



Armenia exhibited a notable average annual increase of more than 13%. Growth rates were above 7% per year in Republic of Korea, Myanmar, and Viet Nam. Growth rates for two major energy producers—India and Indonesia—were just over 2% per annum over the period.

GDP per unit of energy, or energy productivity, (Figure 7.3) is calculated by first converting each country's GDP to a common currency using purchasing power parities (PPPs). This is then divided by all types of energy, each type being converted to standard units or "oil equivalents" by the relevant conversion factors.

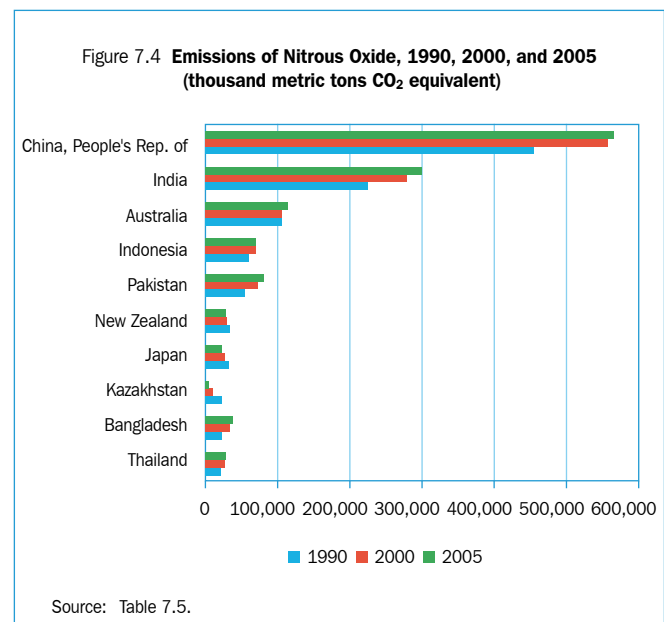


GDP per energy unit differs between economies because of differences in their industrial structures. Agriculture and services generate higher GDP per energy unit than manufacturing. If two economies have identical industrial structures, differences in GDP per energy unit will reflect differences in the efficiency of energy use.

Most economies increased their GDP per unit of energy between 1995 and 2005. The increases were particularly large for the PRC and India, and for the seven former Soviet Union countries shown in the bottom part of Figure 7.3. Traditionally these countries had access to

cheap hydrocarbon fuels from within the Soviet Union but they are now facing much higher prices, which is forcing them to adopt more fuel-efficient technologies.

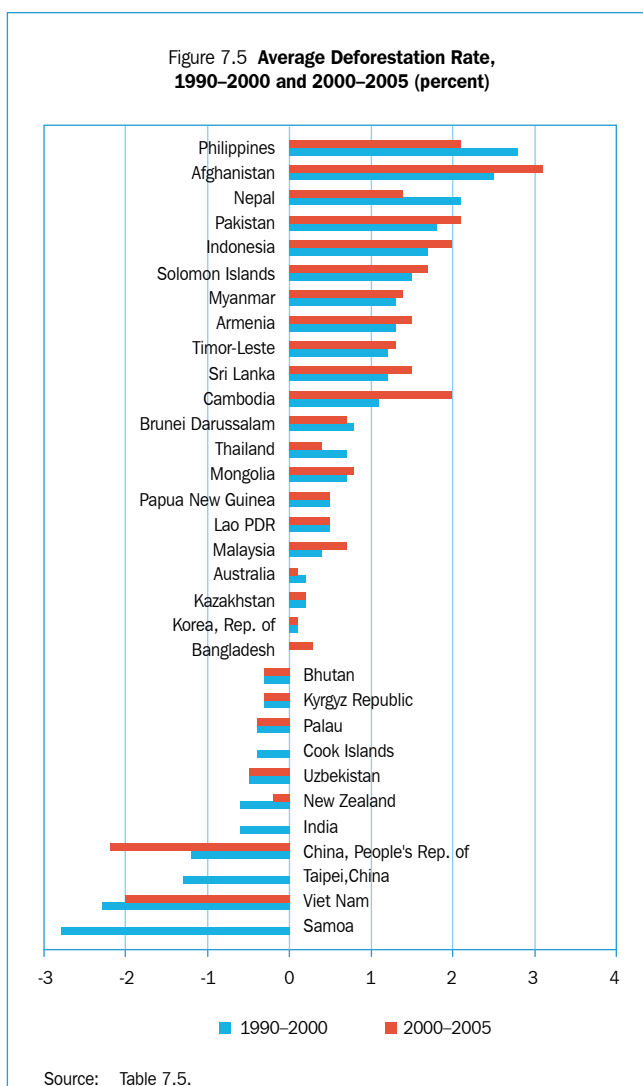
Figure 7.4 shows emissions of nitrous oxide for 10 Asian economies since 1990. Nitrous oxide is the third most important greenhouse gas, after carbon dioxide and methane. It is generated by motor traffic but more significantly by livestock production. The PRC is the main emitter of nitrous oxide, but Australia, India, Indonesia, and Pakistan also emit substantial quantities. All five economies have been increasing emissions between 1990 and 2005.



The statistical tables in Millennium Development Goal 7 give information about another key greenhouse gas, carbon dioxide (CO₂). Emission of CO₂ is the most important cause of global warming. On a per capita basis, Brunei Darussalam leads in CO₂ emissions, followed by Australia, although emissions in the latter fell slightly between 1990 and 2004. Other developed economies in the region—Japan and New Zealand—reported higher per capita emissions during the same period. Substantial increases in emissions were also reported for Republic of Korea; Malaysia; Taipei, China; and Thailand.

Among the five most populous economies, the PRC has the highest CO₂ emissions on a per capita basis; India, Indonesia, and Pakistan are also fairly high emitters; while Bangladesh reports very low emissions. All five economies increased their emissions between 1990 and 2004. While the increases were mostly not large on a per capita basis, these countries' contribution to global warming is substantial because of their huge populations.

Figure 7.5 shows rates of deforestation for two periods, 1990–2000, and 2000–2005. Bars to the right of the axis show deforestation and bars to the left show replanting or regeneration of forests. The PRC and Viet Nam have made important gains in both periods but in many economies, deforestation is proceeding at between 1% and 3% per year. Deforestation rates have slowed in Australia, Brunei Darussalam, Nepal, Philippines, and Thailand; but have increased in other economies, with particularly sharp rises in Afghanistan and Cambodia.



Data Issues and Comparability

Most of the energy data are compiled by the International Energy Agency using standard procedures and conversion factors for all countries.

Data on greenhouse gas emissions are estimated by various environmental agencies.

The Food and Agriculture Organization monitors land use and forestry data using country reports and satellite images.

Table 7.1 **GDP per unit of energy use**
(constant 2005 PPP US dollars per kilogram of oil equivalent)

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Developing Member Countries												
Central and West Asia												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	1.3	3.3	3.3	3.2	3.4	3.6	3.4	3.7	4.5	5.0	5.2	4.9
Azerbaijan	1.3	1.1	1.2	1.4	1.4	1.6	1.8	1.9	2.1	2.2	2.3	2.8
Georgia	2.4	2.2	2.4	3.0	3.3	3.8	3.8	4.5	4.7	5.0	5.1	4.9
Kazakhstan	1.6	1.4	1.6	1.8	1.8	2.0	2.1	2.4	2.4	2.4	2.5	2.5
Kyrgyz Republic	1.5	2.3	2.1	2.5	2.4	2.9	3.0	3.5	3.1	3.0	3.2	3.2
Pakistan	4.2	4.2	4.2	4.1	4.2	4.1	4.2	4.2	4.2	4.2	4.2	4.5
Tajikistan	2.9	1.9	1.5	1.7	1.7	1.7	2.2	2.2	2.5	2.6	2.8	2.8
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.9	1.0	1.1
East Asia												
China, People's Rep. of	1.5	2.1	2.3	2.5	2.7	2.8	3.1	3.3	3.3	3.2	3.1	3.1
Hong Kong, China	12.0	12.1	12.5	12.8	10.3	9.9	12.5	11.9	12.1	12.5	13.0	13.5
Korea, Rep. of	4.9	4.5	4.4	4.2	4.3	4.3	4.3	4.4	4.5	4.5	4.6	4.8
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	...	...	...	...	...	...	...	...	...	...	...	...
South Asia												
Bangladesh	6.1	6.1	6.3	6.4	6.4	6.7	6.7	6.5	6.6	6.6	6.8	6.8
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...
India	3.2	3.4	3.5	3.5	3.7	3.7	3.8	3.9	4.0	4.2	4.3	4.5
Maldives	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	2.3	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.7	2.8	2.8	2.8
Sri Lanka	6.0	7.3	6.7	6.9	7.1	6.9	6.9	6.9	7.1	7.0	6.8	7.2
Southeast Asia												
Brunei Darussalam ^a	7.0	6.2	6.3	6.0	6.0	6.1	6.2	6.9	7.3	6.5	6.5	6.7
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	3.6	4.1	4.2	4.2	4.0	3.6	3.7	3.6	3.7	3.8	3.8	3.9
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	5.2	4.8	5.2	4.8	4.6	5.0	4.7	4.5	4.6	4.6	5.1	4.9
Myanmar	1.3	1.5	1.6	1.7	1.7	1.9	2.1	2.4	2.6	2.7	2.7	2.7
Philippines	5.7	4.9	4.9	4.6	4.7	4.7	4.7	4.9	5.0	5.3	5.4	5.6
Singapore	5.3	5.1	5.2	5.0	5.5	6.0	6.7	6.3	6.2	7.0	6.6	6.0
Thailand	5.1	5.3	5.1	4.9	4.6	4.6	4.7	4.5	4.5	4.5	4.4	4.4
Viet Nam	2.5	2.9	3.0	3.1	3.1	3.2	3.3	3.4	3.3	3.4	3.3	3.5
The Pacific												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji Islands	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...
Developed Member Countries												
Australia	4.8	5.2	5.0	5.1	5.3	5.3	5.4	5.7	5.7	5.8	6.0	5.7
Japan	7.2	6.9	6.9	6.9	6.9	6.8	6.9	7.0	7.0	7.2	7.1	7.3
New Zealand	4.7	4.8	4.7	4.6	4.7	4.7	4.8	4.9	5.3	5.6	5.7	6.0

^a Brunei Darussalam is not a developing member country but an unclassified regional member country of ADB.

Source: World Development Indicators Online (World Bank 2008).

Energy

Table 7.2 Energy production
(kilotons of oil equivalent)

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Developing Member Countries												
Central and West Asia												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	137	245	742	539	547	646	632	602	738	692	746	861
Azerbaijan	21336	14725	14387	14096	16335	19035	18962	19581	19752	19826	20053	27300
Georgia	1844	1195	1610	1440	1377	1326	1325	1265	1328	1376	1287	1272
Kazakhstan	90456	63470	63327	65113	64378	65580	79969	85636	92621	103716	117053	121686
Kyrgyz Republic	2502	1259	1319	1261	1114	1301	1443	1353	1204	1403	1475	1447
Pakistan	34360	41272	42208	42417	43547	45320	47130	49204	50295	55492	58993	61267
Tajikistan	2026	1330	1347	1247	1270	1384	1256	1276	1343	1449	1462	1524
Turkmenistan	74865	32836	32856	19800	18115	26331	45968	50390	52861	58551	58151	61137
Uzbekistan	38643	48655	49087	51302	54398	55027	54945	55506	56237	56180	56887	56573
East Asia												
China, People's Rep. of	886259	1066300	1097303	1097824	1088796	1069001	1073021	1104469	1183676	1331336	1509409	1640944
Hong Kong, China	43	47	48	48	48	48	48	48	48	48	48	48
Korea, Rep. of	22623	21148	22490	23729	27076	30639	32594	33241	34842	37941	38267	42935
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	...	...	...	...	...	...	...	...	...	...	...	...
South Asia												
Bangladesh	10758	12777	12959	13097	13698	14436	15156	16178	16739	17549	18390	19311
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...
India	291073	334683	341150	351565	350290	357406	364212	372187	381339	394221	408403	419036
Maldives	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	5501	6142	6277	6407	6549	6719	7138	7338	7618	7795	7972	8153
Sri Lanka	4191	4022	4204	4346	4319	4548	4530	4462	4240	4840	5161	5255
Southeast Asia												
Brunei Darussalam ^a	15658	18259	17689	17566	16981	18601	19703	19870	20284	21215	20768	21079
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	170260	214321	225369	230874	224292	243417	236471	242891	247532	254787	258603	263390
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	50311	67010	73133	77170	78153	76495	80392	81287	84770	88409	88458	93917
Myanmar	10651	10997	10908	11170	12159	13663	15395	15835	16449	18349	20972	22143
Philippines	13701	15349	16128	16742	17816	19677	20918	20108	21941	22503	23391	24195
Singapore	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	26497	32938	36242	39684	39291	40721	43557	42798	45305	48256	50103	53966
Viet Nam	24711	34529	37723	40548	43944	45594	48362	50294	53366	54502	65271	69541
The Pacific												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji Islands	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...
Developed Member Countries												
Australia	157535	186909	189797	201062	216528	213599	233607	249178	254545	253885	259016	270980
Japan	75214	98567	101720	106194	109116	104523	105793	104740	96869	83998	95015	99772
New Zealand	12008	12994	13982	14760	13846	14513	14859	14721	14369	12970	12744	12201

a Brunei Darussalam is not a developing member country but an unclassified regional member country of ADB.

Source: World Development Indicators Online (World Bank 2008).

Table 7.3 **Energy imports, net**
(percent of energy use)

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Developing Member Countries												
Central and West Asia												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	98.3	85.3	58.5	71.2	71.3	65.0	69.5	70.8	61.7	65.5	65.0	66.3
Azerbaijan	18.1	-12.0	-20.7	-23.8	-38.2	-70.1	-64.7	-69.1	-69.0	-61.3	-54.9	-97.3
Georgia	85.1	68.1	58.2	57.4	56.3	54.0	54.2	51.2	48.5	49.8	54.5	60.4
Kazakhstan	-22.8	-21.5	-39.5	-64.8	-63.2	-82.3	-107.0	-124.6	-121.9	-128.9	-141.7	-132.1
Kyrgyz Republic	67.2	48.8	53.5	52.3	60.5	47.0	41.0	39.5	52.5	48.6	47.2	48.3
Pakistan	20.9	24.0	25.7	27.0	26.6	27.7	26.3	24.6	24.0	19.9	20.7	19.7
Tajikistan	63.8	59.6	61.3	59.4	60.5	58.2	56.0	58.9	54.9	53.9	55.6	55.9
Turkmenistan	-281.3	-136.5	-169.7	-62.0	-50.3	-84.5	-217.6	-234.0	-244.8	-241.8	-274.7	-274.2
Uzbekistan	16.7	-14.3	-11.3	-14.4	-9.1	-7.5	-9.1	-9.5	-6.4	-10.5	-15.1	-20.3
East Asia												
China, People's Rep. of	-2.7	-1.8	-1.0	-0.7	0.1	2.3	2.9	-0.1	0.9	2.1	4.6	4.4
Hong Kong, China	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
Korea, Rep. of	75.8	85.7	86.1	86.5	83.1	82.7	82.9	82.8	82.8	81.7	82.1	79.9
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	...	...	...	...	...	...	...	...	...	...	...	...
South Asia												
Bangladesh	16.1	20.1	19.5	22.1	22.0	18.8	19.0	20.8	20.3	20.2	19.3	20.2
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...
India	9.0	13.6	14.8	15.5	17.6	20.7	20.7	20.2	20.3	19.7	21.5	22.0
Maldives	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	5.3	9.0	9.3	10.4	10.7	13.2	12.6	12.8	10.5	10.9	11.0	11.1
Sri Lanka	24.0	32.4	37.4	37.6	39.0	39.8	44.0	43.7	46.8	44.0	44.7	43.9
Southeast Asia												
Brunei Darussalam ^a	-761.8	-659.8	-630.6	-599.8	-583.1	-639.3	-675.1	-738.0	-771.7	-691.6	-670.6	-698.1
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	-65.0	-61.7	-63.8	-60.0	-67.7	-63.1	-54.9	-51.6	-51.5	-52.6	-48.6	-46.7
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	-115.7	-69.6	-79.7	-63.3	-73.1	-73.5	-56.8	-50.4	-54.1	-52.1	-59.0	-53.3
Myanmar	0.3	6.9	7.9	7.7	2.1	-10.1	-22.6	-29.5	-29.0	-33.9	-48.5	-50.4
Philippines	47.6	54.8	55.2	58.2	54.1	51.5	50.7	51.7	48.1	46.5	46.9	45.9
Singapore	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Thailand	39.6	49.1	49.0	45.8	42.7	43.7	41.6	45.3	45.6	45.6	48.4	46.1
Viet Nam	-1.6	-14.7	-17.0	-19.0	-22.6	-27.1	-29.2	-27.4	-25.4	-23.2	-30.0	-35.6
The Pacific												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji Islands	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...
Developed Member Countries												
Australia	-79.9	-98.0	-88.1	-94.4	-103.8	-96.8	-111.4	-130.0	-127.4	-124.6	-128.1	-122.2
Japan	83.1	80.3	80.2	79.5	78.7	79.9	79.9	79.8	81.4	83.7	82.1	81.2
New Zealand	12.7	17.9	16.1	14.0	17.8	18.1	17.2	18.6	18.4	24.3	26.9	27.8

a Brunei Darussalam is not a developing member country but an unclassified regional member country of ADB.

Source: World Development Indicators Online (World Bank 2008).

Environment

Table 7.4 **Agriculture land use**
(percent of land area)

	Agricultural Land			Arable Land			Permanent Cropland		
	1990	1995	2005	1990	1995	2005	1990	1995	2005
Developing Member Countries									
Central and West Asia									
Afghanistan	58.3	58.3	58.3	12.1	12.1	12.1	0.2	0.2	0.2
Armenia	44.7 (1992)	46.7	49.3	17.7 (1992)	17.6	17.6	2.7 (1992)	2.5	2.1
Azerbaijan	53.8 (1992)	54.3	57.6	20.6 (1992)	20.9	22.3	3.8 (1992)	3.7	2.7
Georgia	46.5 (1992)	43.9	43.3	11.4 (1992)	11.1	11.5	4.8 (1992)	4.4	3.8
Kazakhstan	82.0 (1992)	79.3	76.9	13.0 (1992)	11.8	8.3	0.1 (1992)	0.1	0.1
Kyrgyz Republic	52.6 (1992)	54.4	56.0	6.9 (1992)	6.6	6.7	0.4 (1992)	0.4	0.4
Pakistan	33.7	34.4	35.1	26.6	27.2	27.6	0.6	0.7	1.0
Tajikistan	32.1 (1992)	31.9	30.4	6.1 (1992)	6.2	6.6	0.9 (1992)	0.9	0.9
Turkmenistan	68.6 (1992)	68.9	70.4	2.9 (1992)	3.5	4.9	0.1 (1992)	0.1	0.1
Uzbekistan	66.9 (1992)	66.7	67.3	10.8 (1992)	10.8	11.3	0.9 (1992)	0.9	0.8
East Asia									
China, People's Rep. of	57.2	57.6	59.9	13.3	13.4	15.4	0.8	1.1	1.4
Hong Kong, China	...	...	...	...	...	...	...	...	...
Korea, Rep. of	22.1	20.7	19.1	19.8	18.1	16.4	1.6	2.0	2.0
Mongolia	80.2	75.6	83.3	0.9	0.8	0.7	0.0	0.0	0.0
Taipei, China	...	...	...	...	...	...	...	...	...
South Asia									
Bangladesh	77.1	67.2	69.2	70.2	59.9	61.1	2.3	2.7	3.5
Bhutan	9.2	11.7	12.6	2.4	2.8	3.4	0.4	0.4	0.4
India	60.9	60.8	60.6	54.8	54.4	53.7	2.2	2.7	3.4
Maldives	30.0	30.0	46.7	13.3	13.3	13.3	13.3	13.3	30.0
Nepal	29.0	29.1	29.5	16.0	16.3	16.5	0.5	0.5	0.9
Sri Lanka	36.2	36.0	36.5	13.5	13.4	14.2	15.9	15.8	15.5
Southeast Asia									
Brunei Darussalam ^a	2.5	2.8	4.7	0.6	0.9	2.7	0.8	0.8	0.9
Cambodia	25.2	25.9	30.3	20.9	21.0	21.0	0.6	0.7	0.9
Indonesia	24.9	23.3	26.4	11.2	9.6	12.7	6.5	7.2	7.5
Lao PDR	7.2	7.4	8.5	3.5	3.6	4.3	0.3	0.3	0.4
Malaysia	22.0	24.0	24.0	5.2	5.5	5.5	16.0	17.6	17.6
Myanmar	15.9	15.9	17.1	14.5	14.5	15.3	0.8	0.9	1.4
Philippines	37.4	37.7	40.9	18.4	18.4	19.1	14.8	14.8	16.8
Singapore	3.0	1.8	1.1	1.5	1.5	0.9	1.5	0.3	0.3
Thailand	41.9	41.5	36.4	34.2	33.0	27.8	6.1	7.0	7.0
Viet Nam	20.7	21.7	29.5	16.4	16.6	20.3	3.2	4.1	7.2
The Pacific									
Cook Islands	26.1	21.7	26.1	8.7	8.7	17.4	17.4	13.0	8.7
Fiji Islands	22.4	25.2	25.2	8.8	10.9	10.9	4.4	4.7	4.7
Kiribati	53.4	50.7	50.7	2.7	2.7	2.7	50.7	47.9	47.9
Marshall Islands	...	72.2	77.8	...	5.6	11.1	...	44.4	44.4
Micronesia, Fed. States of	...	44.3	44.3	...	4.3	4.3	...	28.6	28.6
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	19.6	19.6	...	8.7	8.7	...	4.3	4.3
Papua New Guinea	2.0	2.1	2.4	0.4	0.4	0.5	1.3	1.3	1.4
Samoa	34.6	32.5	32.9	12.7	10.6	10.6	21.2	21.2	21.2
Solomon Islands	2.5	2.7	3.0	0.5	0.5	0.6	1.9	2.0	2.1
Timor-Leste	21.4	22.9	22.9	7.4	8.7	8.2	3.9	4.0	4.6
Tonga	44.4	45.8	41.7	22.2	22.2	20.8	16.7	18.1	15.3
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	11.5	11.9	12.1	1.6	1.6	1.6	7.0	7.0	7.0
Developed Member Countries									
Australia	60.5	60.3	57.9	6.2	5.2	6.4	0.0	0.0	0.0
Japan	15.6	14.9	12.9	13.1	12.7	12.0	1.3	1.1	0.9
New Zealand	65.3	61.9	64.4	9.9	5.9	5.6	5.1	6.2	7.1

a Brunei Darussalam is not a developing member country but an unclassified regional member country of ADB.

Sources: FAOSTAT Database Access website (www.faostat.fao.org); for Taipei, China: *Statistical Yearbook 2006* (Directorate-General of Budget, Accounting and Statistics).

Table 7.5 Deforestation and pollution

	Deforestation Rate ^a (average percent change)		Nitrous Oxide Emissions (thousand metric tons CO ₂ equivalent)			Methane Emissions (thousand metric tons CO ₂ equivalent)		
	1990-2000	2000-2005	1990	2000	2005	1990	2000	2005
Developing Member Countries								
Central and West Asia								
Afghanistan	2.5	3.1	...	...	...	...	...	...
Armenia	1.3	1.5	910	500	450	3090	2080	2300
Azerbaijan	0.0	0.0	4060	3530	4040	14510	10620	11550
Georgia	0.0	0.0	3390	2250	3390	5790	4090	4330
Kazakhstan	0.2	0.2	23600	10040	5530	55300	25620	28270
Kyrgyz Republic	-0.3	-0.3	4240	3170	3260	4680	3240	3520
Pakistan	1.8	2.1	55400	73630	80040	82830	104740	110300
Tajikistan	0.0	0.0	3110	1910	1590	3690	3130	3270
Turkmenistan	0.0	0.0	4150	3630	3200	33230	21940	23060
Uzbekistan	-0.5	-0.5	14330	12380	14660	41610	48870	51480
East Asia								
China, People's Rep. of	-1.2	-2.2	455150	556620	566680	895350	973730	995760
Hong Kong, China	...	...	210	230	200	1180	1030	1090
Korea, Rep. of	0.1	0.1	9480	16170	22020	27430	29880	31280
Mongolia	0.7	0.8	10000	16880	22850	7380	9200	4840
Taipei, China	-1.3	0.0	...	...	...	...	...	...
South Asia								
Bangladesh	0.0	0.3	22420	33540	37100	81620	91930	92530
Bhutan	-0.3	-0.3	...	...	...	...	...	...
India	-0.6	0.0	225250	278700	300680	625420	722370	712330
Maldives	0.0	0.0	...	...	...	...	...	...
Nepal	2.1	1.4	5700	6510	7100	33810	36070	36040
Sri Lanka	1.2	1.5	2410	2830	3130	10280	10200	10280
Southeast Asia								
Brunei Darussalam ^b	0.8	0.7	70	360	370	1650	2070	2060
Cambodia	1.1	2.0	...	3490	3820	-	13350	14890
Indonesia	1.7	2.0	60220	69130	69910	180250	223140	224330
Lao PDR	0.5	0.5	...	...	...	...	...	...
Malaysia	0.4	0.7	11600	9350	9920	21300	25320	25510
Myanmar	1.3	1.4	14390	22050	25900	40170	59270	60840
Philippines	2.8	2.1	17990	16890	18940	38830	44630	44860
Singapore	0.0	0.0	180	5880	7970	740	1260	1260
Thailand	0.7	0.4	21330	26030	27990	68930	77070	78840
Viet Nam	-2.3	-2.0	13920	27110	37470	52990	71560	75080
The Pacific								
Cook Islands	-0.4	0.0	...	...	...	...	...	...
Fiji Islands	...	...	...	...	...	...	...	...
Kiribati	0.0	0.0	...	...	...	...	...	...
Marshall Islands	...	0.0	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...
Nauru	0.0	0.0	...	...	...	...	...	...
Palau	-0.4	-0.4	...	...	...	...	...	...
Papua New Guinea	0.5	0.5	...	...	...	...	...	...
Samoa	-2.8	0.0	...	...	...	...	...	...
Solomon Islands	1.5	1.7	...	...	...	...	...	...
Timor-Leste	1.2	1.3	...	...	...	...	...	...
Tonga	0.0	0.0	...	...	...	...	...	...
Tuvalu	0.0	0.0	...	...	...	...	...	...
Vanuatu	0.0	0.0	...	...	...	...	...	...
Developed Member Countries								
Australia	0.2	0.1	106090	105100	114500	104050	116030	116840
Japan	0.0	0.0	31970	26240	23590	57690	59490	53480
New Zealand	-0.6	-0.2	33920	29630	27960	27370	26710	27490

continued.

Environment

Table 7.5 **Deforestation and pollution**
(continued)

	Consumption of Ozone-Depleting CFCs (ODP metric tons)			Organic Water Pollutant (BOD) Emissions (kilograms per day per worker)		
	1990	2000	2005	1990	2000	Latest year
Developing Member Countries						
Central and West Asia						
Afghanistan	380 (1995)	...	141	0.158 (1988)	0.178 (2001)	0.206 (2002)
Armenia	- (1991)	25	84	0.107	0.284	0.276 (2001)
Azerbaijan	481 (1989)	88	22	0.149	0.153	0.168 (2004)
Georgia	766 (1989)	22	8	...	...	...
Kazakhstan	1214	524	...	...	...	...
Kyrgyz Republic	118 (1991)	53	8	0.122	0.189	0.214 (2003)
Pakistan	751	1945	453	0.178	...	...
Tajikistan	91 (1991)	5	...	...	...	...
Turkmenistan	141	21	18	...	...	...
Uzbekistan	585 (1993)	42	-	...	...	...
East Asia						
China, People's Rep. of	41829	39124	13124	0.138	0.139	0.139 (2001)
Hong Kong, China	...	...	...	0.123	0.182	0.199 (2003)
Korea, Rep. of	19605 (1992)	7395	2730	0.125	0.120	0.121 (2002)
Mongolia	7 (1989)	11	4	0.179	...	...
Taipei, China	...	...	...	...	...	...
South Asia						
Bangladesh	195	805	263	0.166	0.144 (1998)	...
Bhutan	- (1991)	-	...	0.152 (1989)	...	...
India	-	5614	1958	0.196	0.201	0.197 (2002)
Maldives	4	5	-	...	...	...
Nepal	20 (1991)	94	-	0.134	0.142 (1996)	0.158 (2002)
Sri Lanka	209	220	149	0.188	0.184	0.182 (2001)
Southeast Asia						
Brunei Darussalam ^b	59 (1992)	47	39	...	...	...
Cambodia	94 (1995)	94	45	0.140	...	...
Indonesia	5249 (1992)	5411	2385	0.187	0.181	0.184 (2003)
Lao PDR	4 (1992)	45	19	...	...	...
Malaysia	3384	1980	668	0.126	0.119	0.124 (2002)
Myanmar	16 (1992)	26	15	0.173	0.136	0.177 (2002)
Philippines	2981	2905	1014	0.206	...	...
Singapore	3167	22	-1	0.092	0.091	0.097 (2003)
Thailand	6660	3568	1260	0.168	...	...
Viet Nam	303 (1991)	220	235	...	...	...
The Pacific						
Cook Islands	- (1991)	-	-	...	...	...
Fiji Islands	38	-	-	0.232	0.201 (1998)	...
Kiribati	- (1991)	-	-	...	...	...
Marshall Islands	1	1	0	...	...	...
Micronesia, Fed. States of	- (1991)	1	0	...	...	...
Nauru	1 (1995)	0	0	...	...	...
Palau	2 (1995)	1	0	...	...	...
Papua New Guinea	28 (1991)	48	15	0.252 (1989)	...	...
Samoa	4 (1991)	1	-	...	...	...
Solomon Islands	2	0	1	...	...	...
Timor-Leste	...	...	...	...	...	...
Tonga	2 (1995)	0	-	0.217	...	...
Tuvalu	0 (1993)	-	-	...	...	...
Vanuatu	- (1989)	-	-	...	...	...
Developed Member Countries						
Australia	7416	6	-51	0.183	0.173	0.182 (2001)
Japan	97723	-24	-	0.139	0.147	0.150 (2002)
New Zealand	558	-3	-	0.216	0.220	...

BOD = biochemical oxygen demand, CFCs = chlorofluoro-carbons, ODP = ozone-depleting potential.

a A negative value indicates that deforestation rate is decreasing (i.e., reforestation).

b Brunei Darussalam is not a developing member country but an unclassified regional member country of ADB.

Sources: World Development Indicators Online (World Bank 2008); United Nations MDG Indicators website (www.mdgs.un.org); FAO Global Forest Resources Assessment 2005; for Taipei, China: *Statistical Yearbook 2007* (Directorate-General of Budget, Accounting and Statistics).