

25 Forests and protected areas

New methodologies for verifying carbon credits could promote multi-million dollar investments in reducing carbon emissions through sustainable forest management.

For the period 1990-2005, more than half of the countries in Asia and the Pacific for which data are available reported net losses in forest cover. However, for the region as a whole coverage declined by one tenth of a percentage point. Currently, only 30 per cent of the land area is covered by forest – one of the lowest proportions among the global regions.

The losses were greatest in Afghanistan, Indonesia, Nepal, Pakistan, the Philippines, and the Solomon Islands where, compared with 1990, forest cover was reduced by more than 20 per cent. Despite investments in forest management, for a majority of countries the loss continued in the 1990s, with the most significant acceleration in Cambodia and Malaysia.

Forests include both natural – primary, modified and semi-natural – forests and plantations. All types of forests provide important ecosystem services, but not all forests are equal.

A key indicator is the health of primary forests. Primary forests are being lost as a result of deforestation and conversion to other uses, as well as the opening up of some areas to low impact logging, or other logging practices and human activities. Natural events also play a part, including disasters and non-anthropogenic forest fires.

In 2005 of the world's 13.4 million square-kilometres of primary forests 6.9 per cent were in Asia and the Pacific. The most important regional stocks are in Indonesia, Papua New Guinea, China and Thailand. In each of these countries except China primary forests make up over 40 per cent of total forest area.

Over the period 1990 to 2005, as a result of many decades of effective forest protection, some countries, were able to report increases in their cover of primary forest – notably Japan, Turkey and

Figure 25.1

Annual change in forest area, Asia and the Pacific, 1990-2000 and 2000-2005

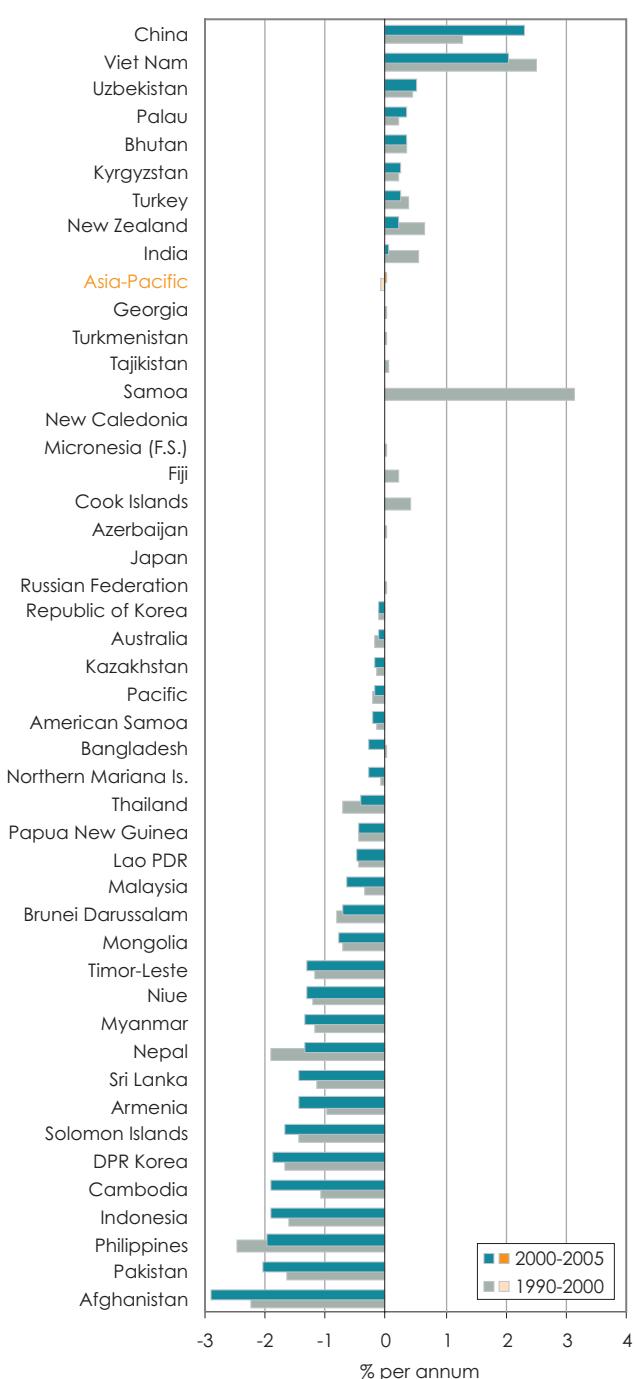
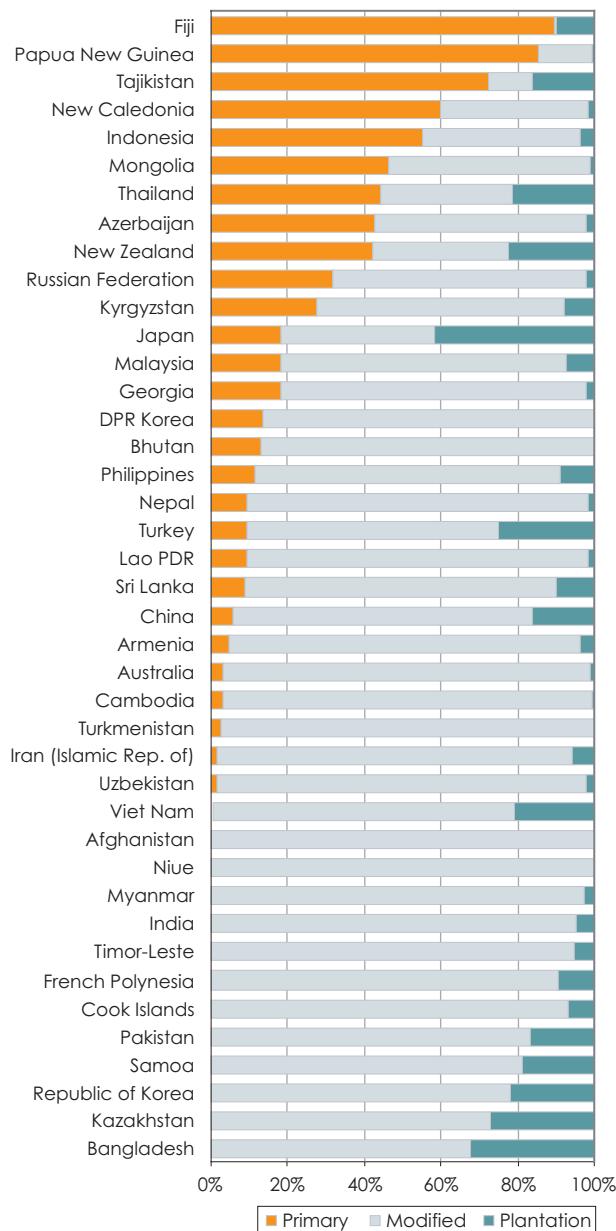


Figure 25.2

Proportion of primary, modified and plantation forest, Asia and the Pacific, 2005

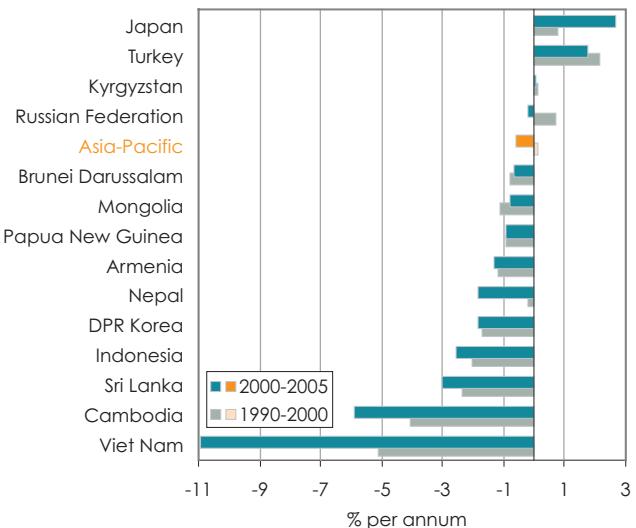


Kyrgyzstan. Of the Asia-Pacific countries or areas for which data are available just over half maintained their coverage unchanged. Others, including those with the fastest rates of reduction in the past, slowed or stabilized their rates of loss. But two countries accelerated their loss of cover between 1990-2000 and 2000-2005 – Viet Nam and Nepal. Viet Nam also has one of the region's lowest coverages – below 1 per cent.

For 2000-2005, the rates of loss of primary forests were fastest in Indonesia, Papua New Guinea, Mongolia, Cambodia, Viet Nam and the Democratic People's Republic of Korea. These countries accounted for 25 per cent of the world's total losses since 2000, and 46 per cent of the area lost since 1990.

Figure 25.3

Largest changes in primary forest cover, 1990-2000 and 2000-2005

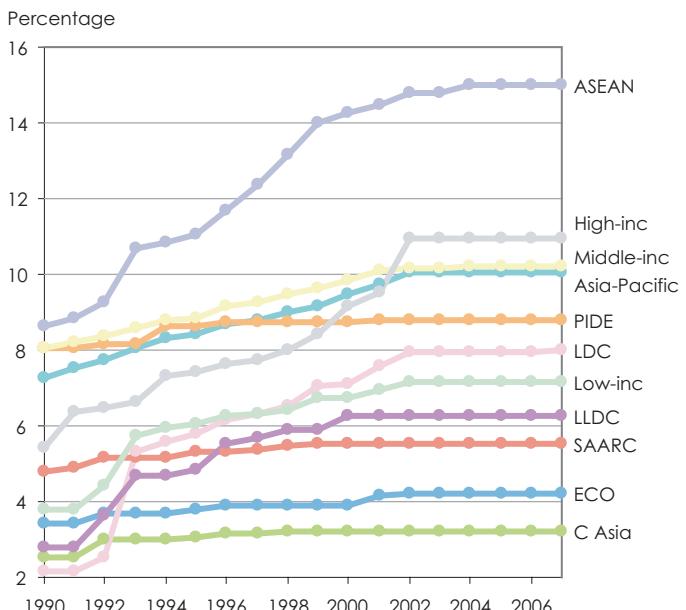


Protected areas

One of the best ways to maintain forests and other important ecological resources is to designate them as protected areas. In 2007, in Asia and the Pacific the terrestrial area designated as legally protected in law was around 10 per cent of total surface area, slightly lower than the global proportion. Nevertheless this represents an improvement. Between 1990 and 2007 the increase in terrestrial areas protected was some 3 per cent of the region's total surface area. Over this period, Asia and the Pacific accounted for 27 per cent of the

Figure 25.4

Ratio of protected terrestrial areas to surface area, 1990-2007

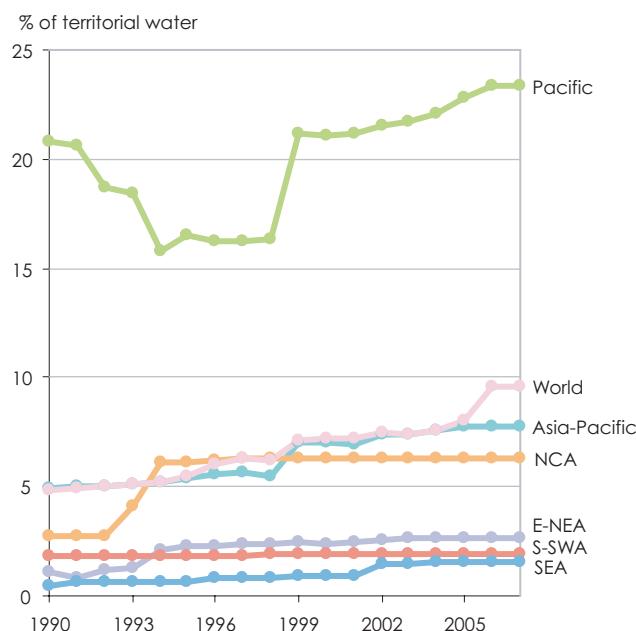


global expansion. Of the subregional groupings, protection is lowest in Central Asia and highest in the ASEAN countries. Of the countries and areas, Brunei Darussalam; Kiribati; Hong Kong, China; New Zealand; Bhutan; and Tonga led the way with 25 per cent or more of their total surface area protected.

Protection is also extended to the seas. In 1990, globally and also in the Asia-Pacific region just under five per cent of the marine surface area was legally protected. Since then, however, other regions have made more rapid progress. In 2007, while the proportion globally was 9.6 per cent, in the Asia-Pacific region it was only 7.8 per cent.

Figure 25.5

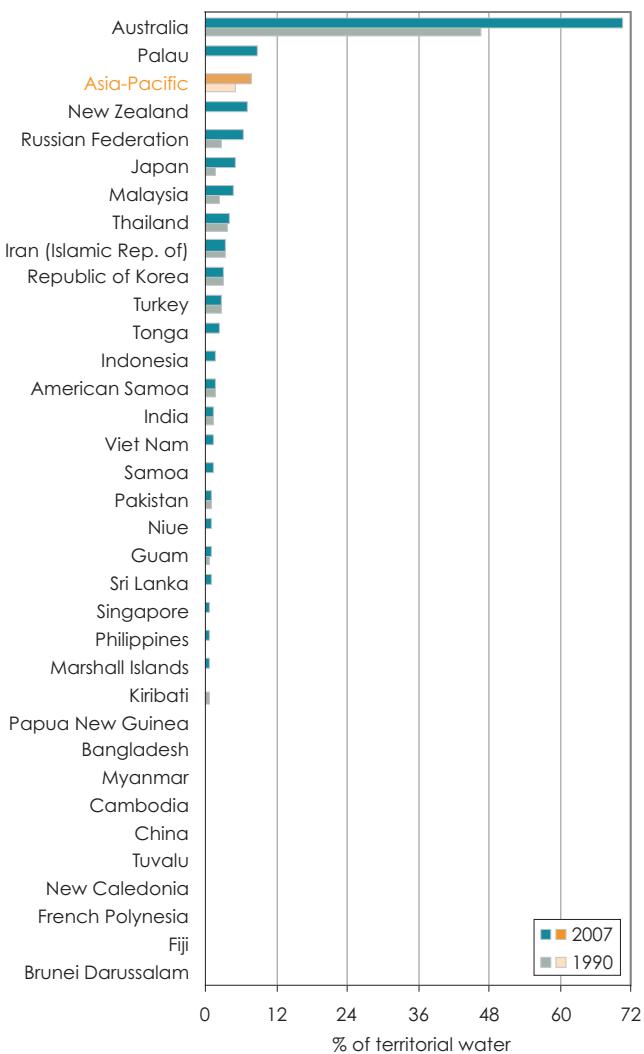
**Proportion of protected marine areas,
1990-2007**



In 2007, of the Asian-Pacific subregions, the Pacific led the way at 23 per cent, followed by South and South-East Asia. By contrast, only 0.1 per cent of waters in South and South-West Asia were protected. The leading countries were Australia, Kiribati, the Russian Federation and Indonesia. The greatest progress in expanding marine protected areas has been in the small island developing States, particularly Kiribati, and Australia.

Figure 25.6

**Proportion of protected marine areas,
1990 and 2007**



Marine areas protected (square kilometres; % of territorial water)

The overall surface area of protected marine areas as adopted by the International Union for Conservation of Nature. Covers any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment. Only protected areas that are nationally designated are included in this indicator.

Aggregates: For marine areas protected (square kilometres): Sum of individual country values; for share in territorial waters (% of territorial waters): Averages are calculated using territorial waters as weight. **Source:** United Nations Millennium Development Goals Indicators (online database, accessed in August 2008).

Terrestrial areas protected (square kilometres; % of surface area)

The total surface (land and sea) area dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. Only protected areas that are nationally designated are included in this indicator. **Aggregates:** For terrestrial areas protected (square kilometres): Sum of individual country values; for share in surface area (% of surface area): Averages are calculated using total surface area as weight. **Source:** United Nations Millennium Development Goals Indicators (online database, accessed in August 2008), and Food and Agriculture Organization of the United Nations, Global Forest Resources Assessment (online database, accessed in July 2008).

Forest area (square kilometres)

The total area covered by forest. Forest land spans more than a half a hectare with trees higher than five metres and a canopy cover of more than ten per cent, or trees able to reach these thresholds in situ. **Aggregates:** Sum of individual country values. **Source:** Food and Agriculture Organization of the United Nations, Global Forest Resources Assessment (online database, accessed in July 2008).

Forest area (% of land area)

The proportion of land area covered by forest. See forest area. **Aggregates:** Averages are calculated using total land area as weight. **Source:** United Nations Millennium Development Goals Indicators (online database, accessed in August 2008), and Food and Agriculture Organization of the United Nations, Global Forest Resources Assessment (online database, accessed in July 2008).

Growth rate of forest area (% per annum)

The average rate of change in forest area, calculated as an arithmetic mean for the period indicated. **Aggregates:** Averages are calculated using sum of individual country values within each group of forest area. **Source:** Calculated by ESCAP using data from forest area (square kilometres).

Forest, primary (square kilometres; % of total forest; change rate per annum)

The total area covered by forest and other wooded land of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed. Includes areas where collection of non-wood forest products occurs, provided the human impact is small. Some trees may have been removed. **Aggregates:** For forest, primary (square kilometres): Sum of individual country values; for share in total forest area (% of total forest): Averages are calculated using total forest area as weight; for change rate (per cent per annum): Averages are calculated using sum of individual country values within each group of primary forest. **Source:** Food and Agriculture Organization of the United Nations, Global Forest Resources Assessment (online database, accessed in November 2008) for primary forest values in square kilometres, and calculated by ESCAP for share in total forest area and change rate per annum.

Forest, modified and semi-natural (square kilometres)

The total area covered by modified natural forests and semi-natural forests. Modified natural forests cover forests and other wooded lands of naturally regenerated native species where there are clearly visible indications of human activities. **Aggregates:** Sum of individual country values. **Source:** Food and Agriculture Organization of the United Nations, Global Forest Resources Assessment (online database, accessed in November 2008).

Forest, productive and protection plantation (square kilometres)

The total area covered by productive plantations and protection plantations. Productive plantation covers forest and other wooded land of introduced species and in some cases native species, established through planting or seeding mainly for production of wood or non-wood goods. Protection plantation covers forest and other wooded land of native or introduced species, established through planting or seeding mainly for provision of services, such as environmental protection, pest control and conservation of habitats to biological diversity. **Aggregates:** Sum of individual country values. **Source:** Food and Agriculture Organization of the United Nations, Global Forest Resources Assessment (online database, accessed in November 2008).

25.1 Protected areas

	Protected marine areas						Protected land areas					
	Square kilometres			% of territorial water			Square kilometres			% of surface area		
	1990	2000	2007	1990	2000	2007	1990	2000	2007	1990	2000	2007
East and North-East Asia	10 657	23 896	26 021	1.1	2.4	2.6	1 247 293	1 614 266	1 731 830	10.6	13.7	14.7
China	456	1 449	1 453	0.1	0.3	0.3	1 135 190	1 337 780	1 452 693	11.8	13.9	15.1
DPR Korea							3 159	3 159	3 159	2.6	2.6	2.6
Hong Kong, China	42	63	66				474	485	485	43.1	44.1	44.1
Japan	7 448	19 673	21 791	1.8	4.7	5.2	40 375	50 699	53 350	10.7	13.4	14.1
Macao, China							63 899	217 912	217 912	4.1	13.9	13.9
Mongolia												
Republic of Korea	2 711	2 711	2 711	3.2	3.2	3.2	4 196	4 231	4 231	4.2	4.3	4.3
South-East Asia	28 528	50 250	87 778	0.5	0.9	1.5	385 558	638 799	673 026	8.6	14.2	15.0
Brunei Darussalam	3	3	3	0.1	0.1	0.1	2 931	3 420	3 420	50.8	59.3	59.3
Cambodia		66	66	0.4	0.4			43 399	43 399	0.1	24.0	24.0
Indonesia	18 283	25 481	60 005	0.5	0.8	1.8	184 776	287 986	299 925	9.7	15.1	15.7
Lao PDR							1 783	37 545	37 545	0.8	15.9	15.9
Malaysia	3 605	6 741	6 741	2.5	4.6	4.6	61 925	66 874	66 971	18.8	20.3	20.3
Myanmar	380	766	766	0.2	0.5	0.5	19 926	28 329	45 024	2.9	4.2	6.7
Philippines	1 433	11 643	11 945	0.1	0.7	0.7	38 417	51 110	51 460	12.8	17.0	17.2
Singapore		5	5	0.8	0.8		29	34	35	4.3	5.0	5.2
Thailand	4 047	4 317	4 317	3.6	3.9	3.9	70 182	103 605	104 452	13.7	20.2	20.4
Timor-Leste									938	2 174	6.3	14.6
Viet Nam	777	1 228	3 930	0.3	0.4	1.4	5 589	15 559	18 621	1.7	4.7	5.6
South and South-West Asia	8 220	8 706	8 861	1.8	1.9	1.9	335 427	391 561	413 272	4.6	5.2	5.5
Afghanistan							1 079	1 079	1 079	0.2	0.2	0.2
Bangladesh	214	214	214	0.5	0.5	0.5	2 563	2 976	3 140	1.8	2.1	2.2
Bhutan								12 408	12 408		26.4	26.4
India	2 691	2 892	2 892	1.4	1.5	1.5	141 662	156 291	156 916	4.3	4.8	4.8
Iran (Islamic Rep. of)	2 676	2 676	2 831	3.3	3.3	3.5	83 583	94 483	115 261	5.1	5.7	7.0
Maldives												
Nepal							9 980	24 333	24 477	6.8	16.5	16.6
Pakistan	339	339	339	1.1	1.1	1.1	70 465	71 309	71 309	8.9	9.0	9.0
Sri Lanka	30	315	315	0.1	1.0	1.0	12 526	13 518	13 518	19.1	20.6	20.6
Turkey	2 270	2 270	2 270	2.8	2.8	2.8	13 569	15 164	15 164	1.7	1.9	1.9
North and Central Asia	36 374	85 087	85 087	2.7	6.3		1 482 904	1 677 714	1 678 627	6.9	7.9	7.9
Armenia							2 160	2 160	2 440	7.2	7.2	8.2
Azerbaijan							5 276	5 695	6 328	6.1	6.6	7.3
Georgia							1 982	2 720	2 720	2.8	3.9	3.9
Kazakhstan							69 425	76 227	76 227	2.5	2.8	2.8
Kyrgyzstan							4 888	6 210	6 210	2.4	3.1	3.1
Russian Federation	36 374	85 087	85 087	2.7	6.3	6.3	1 374 902	1 543 566	1 543 566	8.0	9.0	9.0
Tajikistan							3 281	19 581	19 581	2.3	13.7	13.7
Turkmenistan							12 866	12 866	12 866	2.6	2.6	2.6
Uzbekistan							8 124	8 689	8 689	1.8	1.9	1.9
Pacific	440 802	626 093	874 318	20.8	21.1	23.4	455 550	771 215	918 360	5.3	9.0	10.7
Australia	436 342	609 987	659 687	46.7	65.3	70.6	339 112	643 802	790 135	4.4	8.3	10.2
American Samoa	170	171	171	1.7	1.7	1.7	33	34	34	16.7	16.8	16.8
Cook Islands	1	13	13				2	6	6	0.8	2.6	2.6
Fiji	22	189	209		0.1	0.1	359	394	394	2.0	2.2	2.2
French Polynesia	78	192	192		0.1	0.1	34	43	43	0.8	1.1	1.1
Guam	32	47	47	0.7	1.0	1.0	54	115	115	9.8	20.9	20.9
Kiribati	454	460	186 182	0.6	0.6		338	344	399	46.5	47.4	55.0
Marshall Islands		718	718		0.6	0.6		39	39	0.1	21.8	21.8
Micronesia (F.S.)	5	24	32				56	71	71	8.0	10.1	10.1
Nauru												
New Caledonia	197	257	257	0.2	0.2	0.2	1 346	1 374	1 374	7.2	7.4	7.4
New Zealand	175	303	12 861	0.1	0.2	7.1	72 019	79 098	79 755	26.6	29.2	29.5
Niue		30	30		1.0	1.0		30	30		11.6	11.6
Northern Mariana Is.	2	6	6				20	20	20	4.4	4.4	4.4
Palau	15	90	261	0.5	3.0	8.7	1	6	6	0.2	1.3	1.3
Papua New Guinea	3 220	3 406	3 406	0.4	0.5	0.5	41 616	44 882	44 882	9.0	9.7	9.7
Samoa	36	136	136	0.4	1.3	1.3	67	77	103	2.4	2.7	3.6
Solomon Islands		83	99				16	209	220	0.1	0.7	0.8
Tonga	35	9 916	9 916		2.2	2.2	5	128	191	0.7	17.2	25.5
Tuvalu		36	36		0.2	0.2					0.2	0.2
Vanuatu	18	29	59				472	543	543	3.9	4.5	4.5
Asia and the Pacific	524 581	794 032	1 082 065	4.9	7.0	7.8	3 906 732	5 093 555	5 415 115	7.3	9.5	10.1
LLDC							182 761	424 705	425 762	2.8	6.3	6.3
LDC	1 102	1 790	187 558	0.3	0.5	0.5	36 224	152 180	170 511	2.1	7.1	8.0
ASEAN	28 528	50 250	87 778	0.5	0.9	1.5	385 558	637 861	670 852	8.6	14.2	15.0
ECO	5 285	5 285	5 440	2.7	2.7	2.8	272 556	311 303	332 714	3.4	3.9	4.2
SAARC	3 274	3 760	3 760	1.1	1.3	1.3	238 275	281 914	282 847	4.8	5.5	5.5
Central Asia							108 002	134 148	135 061	2.5	3.2	3.2
Pacific island dev. econ.	8 570	15 803	201 770	0.4	0.8	0.8	97 410	48 315	48 470	8.1	8.8	8.8
Low-income	4 930	6 102	8 820	0.4	0.5	0.7	172 469	307 259	327 335	3.8	6.7	7.2
Middle-income	72 620	154 604	375 540	1.0	1.9	2.3	3 273 671	4 002 939	4 154 781	8.1	9.8	10.2
High-income	447 030	633 247	697 626	26.1	33.0	35.8	460 590	783 321	932 963	5.4	9.2	10.9
Other world regions												
Africa	15 993	38 310	47 679				2 914 073	3 086 525	3 236 934	9.2	10.2	10.7
Europe	28 180	45 293	48 522	2.5	3.5	3.8	571 848	757 985	799 639	9.6	12.8	13.5
Latin America & Carib.	65 944	254 168	341 535	2.4	7.9	9.9	2 182 201	3 690 341	4 661 900	10.6	17.9	22.7
North America	297 937	424 669	772 851	7.7	11.0	20.1	4 031 911	4 268 645	4 292 306	16.6	17.8	17.9
Other countries/areas	207	4 413	4 423		1.4	1.4	174 109	874 687	875 288	5.2	22.7	22.7
World	932 842	1 560 885	2 297 075	4.8	7.2	9.6	13 780 874	17 771 738	19 281 182	9.6	12.7	13.8

25. Forests and protected areas

25.2 Forest areas

							Change rate			
	Square kilometres				% of land area			% per annum		
	1990	1995	2000	2005	1990	1995	2000	2005	90-00	00-05
East and North-East Asia	2 081 550	2 169 090	2 256 630	2 448 620	18.1	18.9	19.7	21.4	0.8	1.7
China	1 571 410	1 670 710	1 770 010	1 972 900	16.8	17.9	19.0	21.2	1.3	2.3
DPR Korea	82 010	75 110	68 210	61 870	68.1	62.4	56.6	51.4	-1.7	-1.9
Hong Kong, China										
Japan	249 500	249 130	248 760	248 680	68.4	68.3	68.2	<v.2	0.0	0.0
Macao, China										
Mongolia	114 920	110 785	106 650	102 520	7.3	7.1	6.8	6.5	-0.7	-0.8
Republic of Korea	63 710	63 355	63 000	62 650	64.5	64.2	63.8	63.5	-0.1	-0.1
South-East Asia	2 456 053	2 316 538	2 177 023	2 038 873	56.3	53.1	50.0	46.8	-1.1	-1.3
Brunei Darussalam	3 130	3 005	2 880	2 780	59.4	57.0	54.6	52.8	-0.8	-0.7
Cambodia	129 460	122 435	115 410	104 470	73.3	69.4	65.4	59.2	-1.1	-1.9
Indonesia	1 165 670	1 072 095	978 520	884 950	64.3	59.2	54.0	48.8	-1.6	-1.9
Lao PDR	173 140	169 230	165 320	161 420	75.0	73.3	71.6	69.9	-0.5	-0.5
Malaysia	223 760	219 835	215 910	208 900	68.1	66.9	65.7	63.6	-0.4	-0.6
Myanmar	392 190	368 865	345 540	322 220	59.6	56.1	52.5	49.0	-1.2	-1.3
Philippines	105 740	92 615	79 490	71 620	35.5	31.1	26.7	24.0	-2.5	-2.0
Singapore	23	23	23	23	3.4	3.4	3.4	3.4	0.0	0.0
Thailand	159 650	153 895	148 140	145 200	31.2	30.1	29.0	28.4	-0.7	-0.4
Timor-Leste	9 660	9 100	8 540	7 980	65.0	61.2	57.4	53.7	-1.2	-1.3
Viet Nam	93 630	105 440	117 250	129 310	28.8	32.4	36.0	39.7	2.5	2.1
South and South-West Asia	996 149	1 007 173	1 018 196	1 013 563	13.9	14.0	14.2	14.1	0.2	-0.1
Afghanistan	13 090	11 620	10 150	8 670	2.0	1.8	1.6	1.3	-2.2	-2.9
Bangladesh	8 820	8 829	8 837	8 714	6.8	6.8	6.8	6.7	0.0	-0.3
Bhutan	30 350	30 880	31 410	31 950	64.6	65.7	66.8	68.0	0.3	0.3
India	639 390	657 465	675 540	677 010	21.5	22.1	22.7	22.8	0.6	0.0
Iran (Islamic Rep. of)	110 750	110 750	110 750	110 750	6.8	6.8	6.8	6.8	0.0	0.0
Maldives	9	9	9	9	3.0	3.0	3.0	3.0	0.0	0.0
Nepal	48 170	43 585	39 000	36 360	33.7	30.5	27.3	25.4	-1.9	-1.4
Pakistan	25 270	23 215	21 160	19 020	3.3	3.0	2.7	2.5	-1.6	-2.0
Sri Lanka	23 500	22 160	20 820	19 330	36.4	34.3	32.2	29.9	-1.1	-1.4
Turkey	96 800	98 660	100 520	101 750	12.6	12.8	13.1	13.2	0.4	0.2
North and Central Asia	8 246 420	8 250 360	8 252 418	8 248 074	39.1	40.3	39.1	39.1	0.0	0.0
Armenia	3 377	3 255	3 050	2 830	12.3	11.5	10.8	10.0	-1.0	-1.4
Azerbaijan	9 357	9 360	9 360	9 360	11.3	11.2	11.3	11.3	0.0	0.0
Georgia	27 589	27 599	27 600	27 601	39.7	39.7	39.7	39.7	0.0	0.0
Kazakhstan	34 095	33 935	33 650	33 370	1.3	1.3	1.2	1.2	-0.1	-0.2
Kyrgyzstan	8 405	8 474	8 583	8 693	4.4	4.4	4.5	4.5	0.2	0.3
Russian Federation	8 087 484	8 091 092	8 092 685	8 087 900	47.9	49.4	47.9	47.9	0.0	0.0
Tajikistan	4 083	4 090	4 100	4 100	2.9	2.9	2.9	2.9	0.0	0.0
Turkmenistan	41 256	41 270	41 270	41 270	8.8	8.8	8.8	8.8	0.0	0.0
Uzbekistan	30 774	31 285	32 120	32 950	7.4	7.4	7.8	8.0	0.4	0.5
Pacific	2 125 049	2 102 651	2 080 252	2 062 457	25.1	24.8	24.5	24.3	-0.2	-0.2
Australia	1 679 040	1 662 745	1 646 450	1 636 780	21.9	21.6	21.4	21.3	-0.2	-0.1
American Samoa	184	182	181	179	91.9	91.0	90.3	89.4	-0.2	-0.2
Cook Islands	149	152	155	155	63.9	63.3	66.5	66.5	0.4	0.0
Fiji	9 790	9 895	10 000	10 000	53.6	54.2	54.7	54.7	0.2	0.0
French Polynesia	1 050	1 050	1 050	1 050	28.7	28.7	28.7	28.7	0.0	0.0
Guam	259	259	259	259	47.1	48.0	47.1	47.1	0.0	0.0
Kiribati	22	22	22	22	3.0	2.7	3.0	3.0	0.0	0.0
Marshall Islands										
Micronesia (F.S.)	633	634	634	634	90.6	90.6	90.6	90.6	0.0	0.0
Nauru										
New Caledonia	7 170	7 170	7 170	7 170	39.2	39.2	39.2	39.2	0.0	0.0
New Zealand	77 200	79 730	82 260	83 090	28.8	29.8	30.7	31.0	0.7	0.2
Niue	172	162	151	141	66.2	62.3	58.1	54.2	-1.2	-1.3
Northern Mariana Is.	341	342	338	333	75.3	74.3	73.4	72.4	-0.1	-0.3
Palau	388	389	396	403	82.9	84.6	86.1	87.6	0.2	0.4
Papua New Guinea	315 230	308 278	301 325	294 370	69.6	68.1	66.5	65.0	-0.4	-0.5
Samoa	1 300	1 505	1 710	1 710	45.9	53.2	60.4	60.4	3.2	0.0
Solomon Islands	27 680	25 695	23 710	21 720	98.9	91.8	84.7	77.6	-1.4	-1.7
Tonga	36	36	36	36	5.0	5.0	5.0	5.0	0.0	0.0
Tuvalu	10	10	10	10	33.3	33.3	33.3	33.3	0.0	0.0
Vanuatu	4 395	4 395	4 395	4 395	36.1	36.1	36.1	36.1	0.0	0.0
Asia and the Pacific	15 905 221	15 845 812	15 784 519	15 811 587	30.2	30.5	29.9	29.9	-0.1	0.0
LLDC	511 017	497 769	484 663	473 493	7.6	7.5	7.3	7.1	-0.5	-0.5
LDC	838 296	796 180	754 063	709 650	40.0	38.0	36.0	33.8	-1.0	-1.2
ASEAN	2 446 393	2 307 438	2 168 483	2 030 893	56.3	53.1	49.9	46.7	-1.1	-1.3
ECO	373 880	372 659	371 663	369 933	4.8	4.8	4.7	4.7	-0.1	-0.1
SAARC	788 599	797 763	806 926	801 063	16.5	16.7	16.9	16.8	0.2	-0.1
Central Asia	158 936	159 268	159 733	160 174	3.9	3.9	3.9	3.9	0.1	0.1
Pacific island dev. econ.	368 809	360 176	351 542	342 587	68.2	66.6	65.0	63.4	-0.5	-0.5
Low-income	1 351 952	1 306 151	1 260 715	1 213 887	30.3	29.4	28.3	27.3	-0.7	-0.7
Middle-income	12 471 515	12 472 528	12 471 298	12 554 579	31.4	31.9	31.3	31.5	0.0	0.1
High-income	2 081 423	2 066 809	2 052 190	2 042 815	24.7	24.5	24.3	24.2	-0.1	-0.1
Other world regions										
Africa	6 993 581	6 774 844	6 556 105	6 354 090	23.6	22.9	22.1	21.4	-0.6	-0.6
Europe	1 805 587	1 845 966	1 888 226	1 926 039	31.6	32.3	33.1	33.7	0.5	0.4
Latin America & Carib.	9 928 221	9 703 500	9 478 776	9 241 619	49.5	47.9	47.3	46.2	-0.5	-0.5
North America	6 087 862	6 106 092	6 124 322	6 132 272	32.5	32.8	32.6	32.6	0.1	0.0
Other countries/areas	52 438	53 297	54 157	54 650	1.4	1.4	1.4	1.4	0.3	0.2
World	40 772 909	40 329 511	39 886 105	39 520 257	31.2	31.0	30.5	30.2	-0.2	-0.2

25.3 Primary, modified and plantation forest

						Productive and protection plantation	Primary forest					
	Primary		Modified and semi natural				Share in forest area	Primary forest		Change rate		
	1990	2000	2005	2005	2005		% of total forest areas	1990	2000	2005	% per annum	
Square kilometres												
	1990	2000	2005	2005	2005		1990	2000	2005	90-00	00-05	
East and North-East Asia	220 650	215 480	218 080	1 798 870	431 660	10.6	9.5	8.9	-0.2	0.2		
China	116 320	116 320	116 320	1 542 890	313 690	7.4	6.6	5.9	0.0	0.0		
DPR Korea	11 290	9 390	8 520	53 350		13.8	13.8	13.8	-1.7	-1.9		
Hong Kong, China												
Japan	37 640	40 540	45 910	99 550	103 210	15.1	16.3	18.5	0.8	2.6		
Macao, China												
Mongolia	55 400	49 230	47 330	54 070	1 120	48.2	46.2	46.2	-1.1	-0.8		
Republic of Korea				49 010	13 640							
South-East Asia	844 740	694 640	619 790	1 293 470	125 610	34.4	31.9	30.4	-1.8	-2.2		
Brunei Darussalam	3 130	2 880	2 780			100.0	100.0	100.0	-0.8	-0.7		
Cambodia	7 660	4 560	3 220	100 660	590	5.9	4.0	3.1	-4.0	-5.9		
Indonesia	704 190	559 410	487 020	363 940	33 990	60.4	57.2	55.0	-2.1	-2.6		
Lao PDR	14 900	14 900	14 900	144 280	2 240	8.6	9.0	9.2	0.0	0.0		
Malaysia	38 200	38 200	38 200	154 970	15 730	17.1	17.7	18.3	0.0	0.0		
Myanmar				313 730	8 490							
Philippines	8 290	8 290	8 290	57 130	6 200	7.8	10.4	11.6	0.0	0.0		
Singapore	20	20	20			87.0	87.0	87.0	0.0	0.0		
Thailand	64 510	64 510	64 510	49 700	30 990	40.4	43.5	44.4	0.0	0.0		
Timor-Leste				7 550	430							
Viet Nam	3 840	1 870	850	101 510	26 950	4.1	1.6	0.7	-5.1	-10.9		
South and South-West Asia	20 000	20 910	21 040	920 250	72 260	2.0	2.1	2.1	0.5	0.1		
Afghanistan				8 670								
Bangladesh				5 920	2 790							
Bhutan	4 130	4 130	4 130	27 800	20	13.6	13.1	12.9	0.0	0.0		
India				644 750	32 260							
Iran (Islamic Rep. of)	2 000	2 000	2 000	102 590	6 160	1.8	1.8	1.8	0.0	0.0		
Maldives												
Nepal	3 910	3 840	3 490	32 340	530	8.1	9.8	9.6	-0.2	-1.8		
Pakistan				15 840	3 180							
Sri Lanka	2 570	1 970	1 670	15 710	1 950	10.9	9.5	8.6	-2.3	-3.0		
Turkey	7 390	8 970	9 750	66 630	25 370	7.6	8.9	9.6	2.1	1.7		
North and Central Asia	2 433 380	2 597 440	2 570 830	5 495 700	181 550	29.5	31.5	31.2	0.7	-0.2		
Armenia	170	150	140	2 590	100	5.0	4.9	4.9	-1.2	-1.3		
Azerbaijan	4 000	4 000	4 000	5 160	200	42.7	42.7	42.7	0.0	0.0		
Georgia	5 000	5 000	5 000	22 000	600	18.1	18.1	18.1	0.0	0.0		
Kazakhstan				24 280	9 090							
Kyrgyzstan	2 370	2 400	2 410	5 620	660	28.2	28.0	27.7	0.1	0.1		
Russian Federation	2 417 260	2 581 310	2 554 700	5 363 580	169 630	29.9	31.9	31.6	0.7	-0.2		
Tajikistan	2 970	2 970	2 970	470	660	72.7	72.4	72.4	0.0	0.0		
Turkmenistan	1 040	1 040	1 040	40 230		2.5	2.5	2.5	0.0	0.0		
Uzbekistan	570	570	570	31 770	610	1.9	1.8	1.7	0.0	0.0		
Pacific	340 420	365 260	352 750	1 643 120	38 640	16.0	17.6	17.1	0.7	-0.7		
Australia		52 330	52 330	1 566 790	17 660		3.2	3.2	0.0	0.0		
American Samoa												
Cook Islands				140	10							
Fiji	8 950	8 940	8 940	50	1 010	91.4	89.4	89.4	0.0	0.0		
French Polynesia				950	100							
Guam												
Kiribati												
Marshall Islands												
Micronesia (F.S.)												
Nauru												
New Caledonia	4 310	4 310	4 310	2 770	100	60.1	60.1	60.1	0.0	0.0		
New Zealand	35 060	35 060	35 060	29 510	18 520	45.4	42.6	42.2	0.0	0.0		
Niue				140								
Northern Mariana Is.												
Palau												
Papua New Guinea	292 100	264 620	252 110	41 340	920	92.7	87.8	85.6	-0.9	-0.9		
Samoa				1 390	320							
Solomon Islands												
Tonga				40								
Tuvalu												
Vanuatu												
Asia and the Pacific	3 859 190	3 893 730	3 782 490	11 151 410	849 720	24.3	24.7	23.9	0.1	-0.6		
LLDC	89 460	83 230	80 980	377 280	15 230	17.5	17.2	17.1	-0.7	-0.5		
LDC	30 600	27 430	25 740	642 340	15 410	3.7	3.6	3.6	-1.0	-1.2		
ASEAN	844 740	694 640	619 790	1 285 920	125 180	34.5	32.0	30.5	-1.8	-2.2		
ECO	20 340	21 950	22 740	301 260	45 930	5.4	5.9	6.1	0.8	0.7		
SAARC	10 610	9 940	9 290	751 030	40 730	1.3	1.2	1.2	-0.6	-1.3		
Central Asia	16 120	16 130	16 130	132 120	11 920	10.1	10.1	10.1	0.0	0.0		
Pacific island dev. econ.	305 360	277 870	265 360	46 820	2 460	82.8	79.0	77.5	-0.9	-0.9		
Low-income	339 610	305 120	289 040	855 500	47 620	25.1	24.2	23.8	-1.0	-1.1		
Middle-income	3 439 420	3 453 470	3 353 040	8 547 050	648 860	27.6	27.7	26.7	0.0	-0.6		
High-income	80 160	135 140	140 410	1 748 580	153 230	3.9	6.6	6.9	6.9	0.8		
Other world regions												
Africa	417 200	390 020	376 700	3 805 440	131 680	6.0	5.9	5.9	-0.7	-0.7		
Europe	82 730	89 200	84 790	1 561 050	106 800	4.6	4.7	4.4	0.8	-1.0		
Latin America & Carib.	6 909 590	6 655 370	6 437 380	2 176 880	131 380	69.6	70.2	69.7	-0.4	-0.7		
North America	2 706 920	2 706 820	2 696 060	3 265 590	170 610	44.5	44.2	44.0	0.0	-0.1		
Other countries/areas	220	220	220	46 770	7 520	0.4	0.4	0.4	0.0	0.0		
World	13 975 850	13 735 360	13 377 640	22 007 140	1 397 710	34.3	34.4	33.9	-0.2	-0.5		