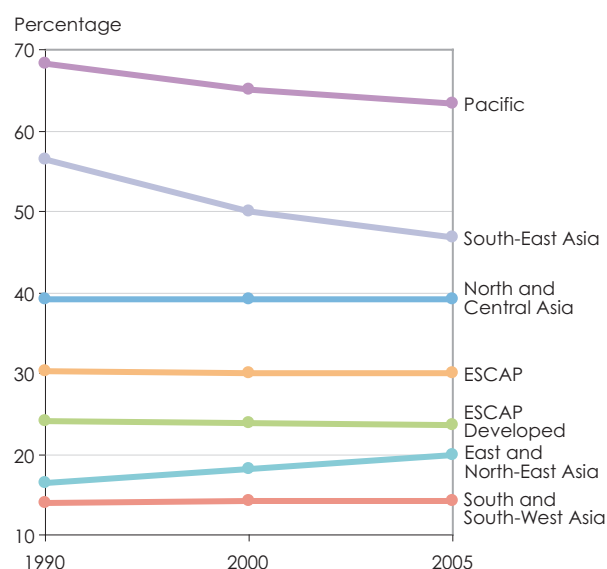


## 24. Protected areas

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

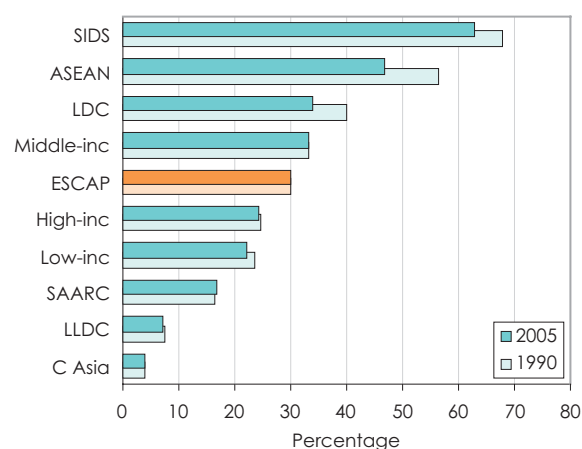


As illustrated in figure 24.1 and 24.2, the land area under forests declined in most groups of countries within Asia and the Pacific between 1990 and 2005. The decline was steepest in ASEAN countries, where forests covered 56 per cent of the land area in 1990 but just 47 per cent in 2005.

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.

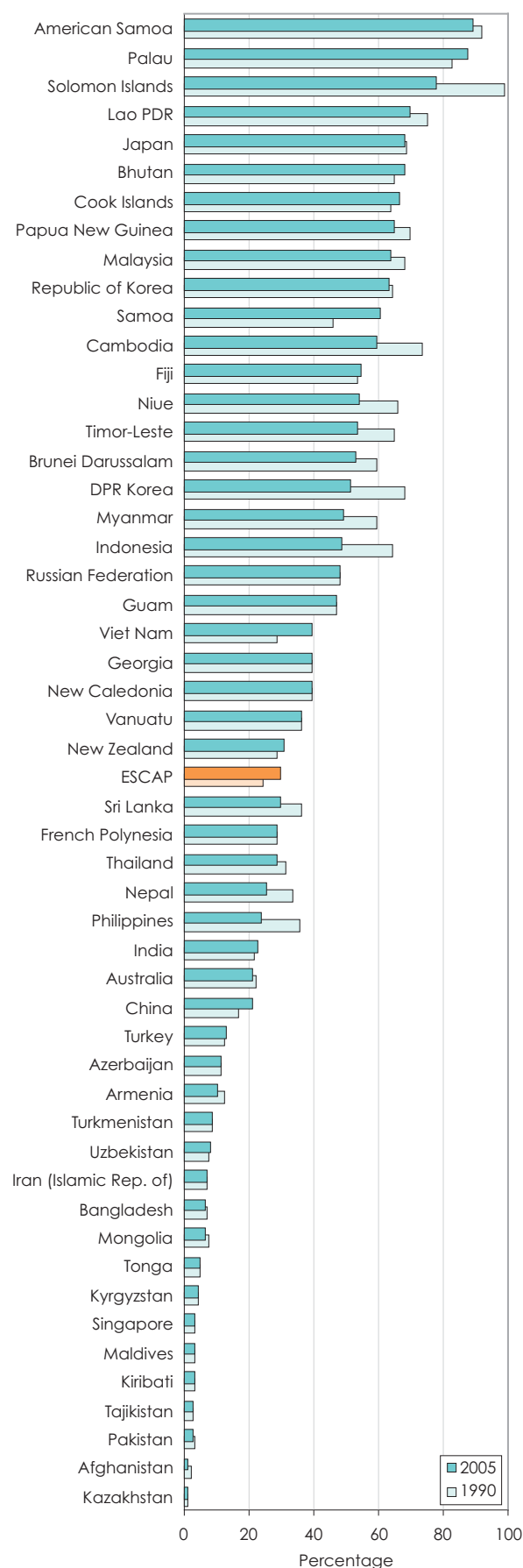
Viet Nam, on the other hand, is the only country within ASEAN that has turned the trend around as a result of reduced illegal logging and a decline in forest fires. Plantation forests as well as natural forests increased in size, according to the Viet Nam 2005 Millennium Development Goals report. While 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

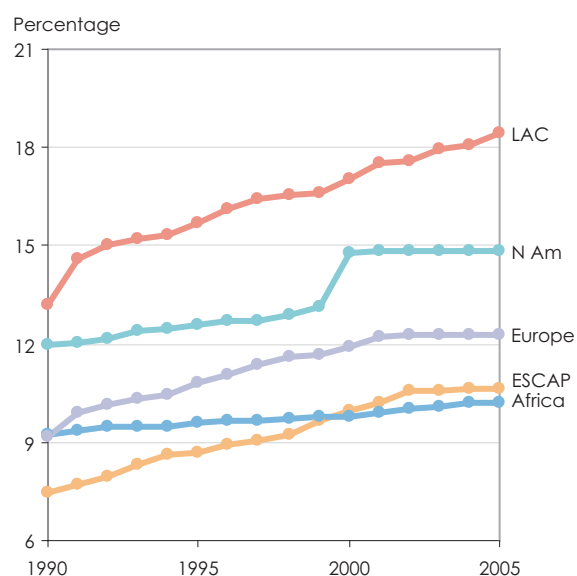


that China expanded its forest land area by 4.4 percentage points between 1990 and 2005 by active afforestation.

#### 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

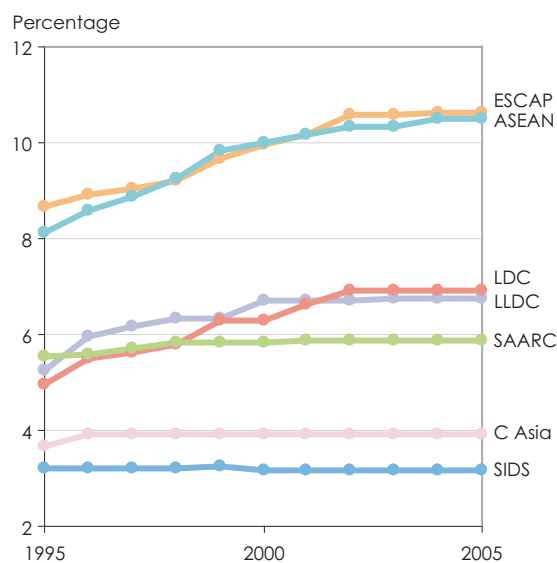
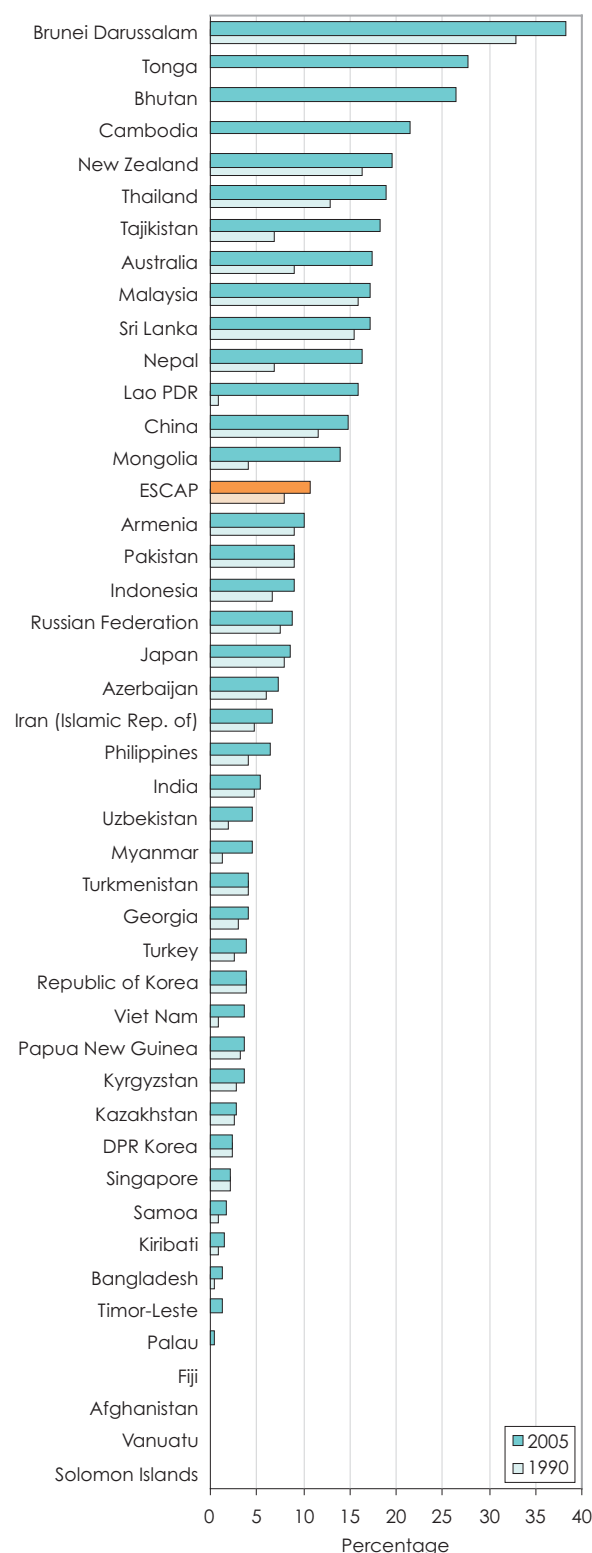


Figure 24.6 Proportion of protected areas in selected Asian and Pacific countries, 1990 and 2005



**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
<b>East and North-East Asia</b>							
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
<b>South-East Asia</b>							
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
<b>South and South-West Asia</b>							
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
<b>North and Central Asia</b>							
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
<b>Pacific</b>							
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
<b>ESCAP Developed Economies</b>							
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							