

# ASIA-PACIFIC FORESTS AND FORESTRY TO 2020

## Forest Policy Brief 01



## Forests for a greener future

With only 0.2 hectares of forest per person, the Asia-Pacific region is, per capita, the least forested region in the world. Reinvestment in forests is necessary to reduce timber import dependence, support biodiversity conservation and climate change mitigation, revitalise rural economies and protect land and populations from environmental hazards and the impacts of climate change. Expanding the region's forest base will be an essential component of a greener future.

Since 1990, 38.7 million hectares of primary and other naturally regenerated forest have been lost in the Asia-Pacific region - an area greater than the size of Japan. The overall low levels of per capita forest area in the region make these reductions even more significant. In South Asia, in particular, 23 percent of the world's population relies on only 2 percent of global forest resources and per capita forest area stands at only 0.05 hectares. The largest total reductions in forest area since 1990 were, however, in Southeast Asia where deforestation amounted to 33.2 million hectares or 7.6 percent of the land area (Fig. 1).

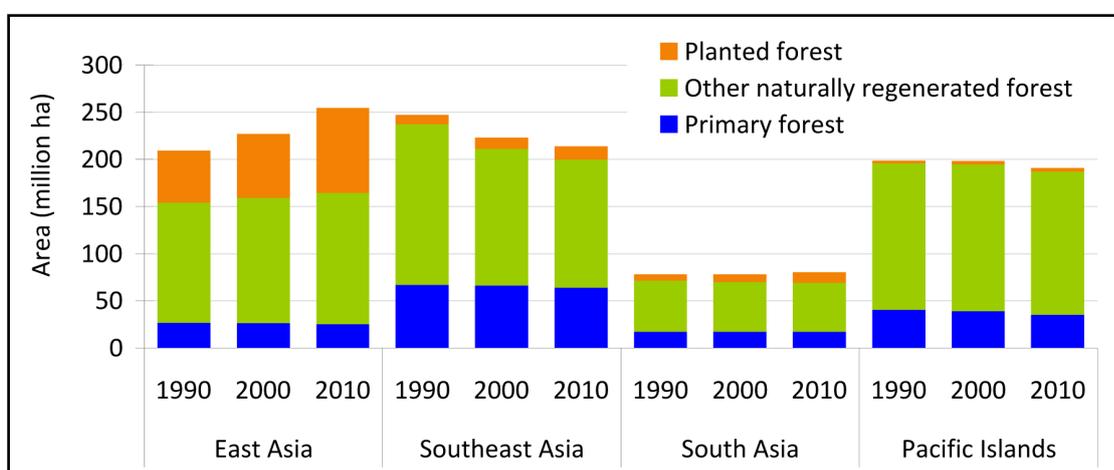
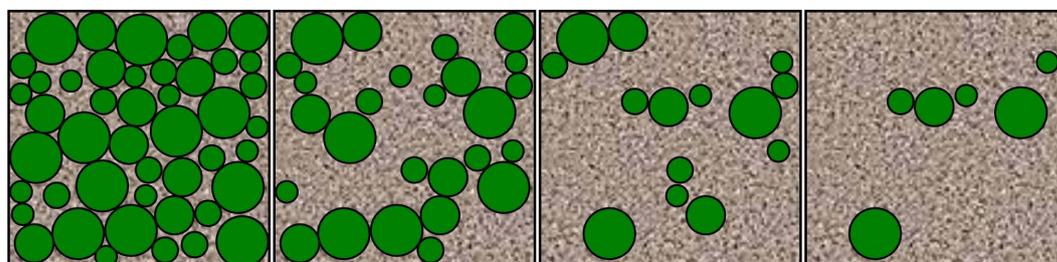


Figure 1. Forest area by category in Asia-Pacific sub regions, 1990-2010.

Forest degradation, although widespread, often goes unnoticed (Box 1). For example, standard forest cover definitions will fail to capture changes in forests above 10 percent canopy cover (Fig. 2). Low reported stocking densities, falling timber production and increasing incidence of forest fire, are symptomatic of widespread and increasing levels of forest degradation around the region. Together, deforestation and forest degradation have resulted in a decline in the provision of forest goods and ecosystem services in many countries including those related to carbon, water and biodiversity.

Figure 2. Representations of 70, 40, 20 and 10 percent canopy cover - all constitute 'forest' under the FAO definition.



### Box 1. Forest degradation in Lao PDR

In Lao PDR, forest cover in 2004 was estimated at 41.5 percent using a minimum canopy cover limit of 20 percent. In 2005, Lao PDR reported 70 percent forest cover using a 10 percent canopy cover limit. These figures suggest that almost one third of the land area of Lao PDR is covered with highly degraded forests.

Source (FAO 2011)

With reductions in the areas of primary and other naturally regenerated forest in the Asia-Pacific region, biodiversity continues to be lost at a high rate. Forest conversion is the primary driver of species loss and agricultural expansion is the main cause of forest conversion. A biodiversity crisis threatens Southeast Asia with estimates that 13-42 percent of species will be lost in the subregion by 2100, at least half of which could represent global extinctions. In South Asia, mining and infrastructure development are major threats to biodiversity while in East Asia urban development is added to the list. In the Pacific, invasive species are posing a major threat to biodiversity along with mining, logging and agricultural encroachment.

As natural forests have been cleared and degraded, and logging bans have come into force, timber production has also declined across much of the region. Concurrent investment in timber production either through institutional strengthening to enable sustainable



management of natural forests for production or through plantation development has only been seen in a few countries. Imports are increasing as a result and the region's former pre-eminence as a global timber producer has waned.

Between 1997 and 2007, Asia-Pacific industrial roundwood production fell by 5 percent, led by reductions in East and Southeast Asia (Fig. 3). Production increases in South Asia and the

Pacific were accounted for by India and Australia where significant private and public investments in plantation development have been made. Industrial roundwood import dependence of Asia-Pacific countries jumped to 18 percent between 1997 and 2007. In East Asia, the change was much more pronounced, from 6 to 29 percent, driven almost entirely by China (Fig. 4).

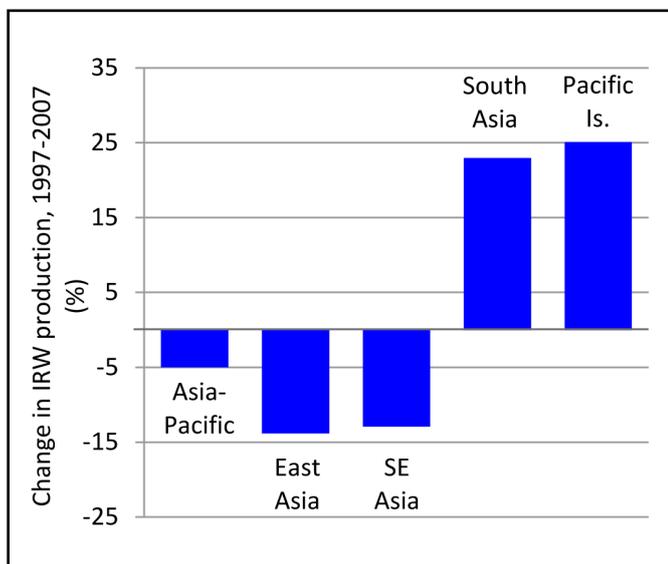


Figure 3. Change in industrial roundwood production in the Asia-Pacific region, 1997-2007.

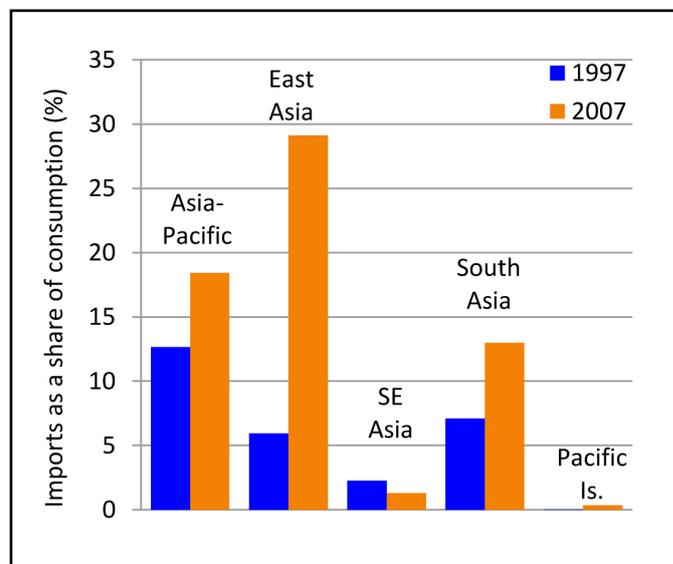


Figure 4. Asia-Pacific industrial roundwood imports as a share of consumption, 1997, 2007.

As Asia-Pacific populations expand and incomes grow, demand for wood products, especially processed products such as panels and paper, is set to increase significantly from the low per capita levels seen today.

Dependence on timber imports is increasing and although the region is unlikely to suffer wood shortages, measures aimed at increasing forest protection may further increase wood imports. Under

such circumstances, efforts will be necessary to maintain or increase wood production to help avoid displacement of forest degradation to countries where forests remain intact and governance is weak.

Investment in forest resources has been cited as essential in mitigating climate change and limiting global human induced temperature rise to within 2°C. Deeply entrenched social causes of deforestation and forest degradation constrain, however, the extent to which forestry sectors in the region can realistically be expected to respond to international calls for emissions

reductions. Emissions reduction policies that stimulate economic activity, e.g. through investment in sustainable production of wood, may help to overcome some of the barriers to reducing emissions from forestry.

Investment in forest resources will also be necessary to help address the impacts of climate

change including increases in the incidence of landslides, floods, droughts, and disasters in coastal areas. Protection forests in the region are generally poorly managed and attention is needed to increase the contribution of forestry to climate change adaptation and to help forests adapt to climate change (Box 2).

### Box 2. Climate change impacts in Asia

Most regional climate change studies project changes in the seasonal distribution of rainfall, with drier and/or longer dry seasons and shorter, more intense wet seasons. Increases in tropical cyclone intensities by 10 to 20 percent are expected while average temperatures are projected to increase by 0.8-2.2°C by 2039.

Changes in climate are expected to increase incidence of fire, forest dieback and spread of pests, pathogens and invasive species, and are also likely to directly affect tree physiology, forest growth and biodiversity. Increases in extreme rainfall events are likely to directly increase the frequency of landslides in sloping areas. At the same time, increased road development and rising levels of human activity in forest areas are likely to increase fire risks and may result in increasing cycles of forest devastation.

Maintenance of forest health and vitality will be of key importance in relation to climate change-related threats.

Source: Several sources cited in FAO (2011)



Notwithstanding trends in primary and other naturally regenerated forests, tremendous efforts are being made in several countries around the region to recapitalize forestry sectors and restore forest ecosystems. While international

discussions related to prevention of deforestation and degradation have become protracted, the extent of planted forests in the region has increased by 45.6 million hectares since 1990 - largely due to the efforts of China and Viet

Nam. In India and the Philippines increases in forest cover have also been recorded while some other countries in the region appear to have decoupled the relationship between economic development and deforestation.

### Box 3. Reforestation and plantation production

Asia as a whole had 125 million hectares of planted forests in 2005, with an estimated potential annual production of about 495 million cubic metres; over twice the current total reported production of industrial roundwood (Carle and Holmgren 2008).

Improvements in plantation production of timber could have major effects on future demand for timber from natural forests and would also provide green building materials with a carbon footprint much smaller than substitute products such as concrete, steel and aluminium.

Millions of hectares of grassland and heavily degraded forests in the region may become economically viable sites for plantation development and assisted natural regeneration of forests if newly developed financing mechanisms prove workable.

## The way forward

Heightened global interest in forests and forestry constitutes the greatest opportunity in recent times for the forestry sector to deliver on society's priorities for forestry. Global climate change related initiatives aimed at reducing deforestation and forest degradation, including the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+), are providing growing support for sustainable forest management. Given the opportunities that presently exist, funnelling start-up investment into accessing and acquiring additional financing seems appropriate.

Notwithstanding emerging opportunities for international support for forestry, the progress shown by several countries in the region suggests that national investment can act as the primary driver for forest protection and forest expansion. Experience from countries where such programmes have been undertaken will bring increased clarity in relation to the relative benefits of different approaches and practices. Farm forestry and private sector investment have been particularly effective in various subregions while state-run schemes have also proved effective.

To attract and make the most of investments in forestry, an enabling institutional environment is essential. As such, reinvention of forestry institutions will often



be necessary. Improvements in institutional responsiveness, flexibility and efficiency are essential to cater to increased demand for forest goods and ecosystem services. At the same time, calls for improved social and economic justice mean that direct government control over forest resources will need to be gradually relinquished. Government forestry agencies may need to confine responsibilities to regulation and oversight while allowing the private sector, civil society and local actors to manage a larger proportion of the national forest estate. A major factor in encouraging investment will be increased clarity and stability of forest and forest land tenure. Without appropriate allocation of rights and responsibilities, investment in forestry may be wasted.

With the region's forest area beginning to stabilise and in view of the rising demands for agricultural land, focus should be directed

towards improving forest quality and raising the production of ecosystem services through forest conservation and rehabilitation and afforestation/reforestation. Protected areas provide a widely recognized means of conserving ecosystems and species and offer major potential for conserving forest biodiversity. Providing adequate funding to monitor and maintain protected areas and diverting mining and infrastructure development activities away from precious forest resources will reduce the level of threat to much of the region's biodiversity.

Recapitalization of the region's forest resources is essential for a greener future. Continued high rates of economic growth in the region provide the means to ensure that necessary steps are taken. Failure to invest in forest resources may cost more in the long run than investing while conducive conditions prevail.

## References

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