



# GMS Forest Policy Brief 01

## Investment in forest resources

With 48% forest cover, the Greater Mekong Subregion still has large areas of forest remaining. The area of primary forest is, however, low and falling, while large tracts of forest are highly degraded and forest planting rates remain low in most countries. Reinvestment in forests is necessary to maintain wood and timber production, support biodiversity conservation and climate change mitigation, revitalise rural economies and protect against natural hazards and the impacts of climatic alterations. For a greener future, investment in forestry is essential.

Since 1990, 12.7 million hectares of primary and other naturally regenerated forest have been lost in the GMS – an area greater than half the size of Lao PDR. The largest losses have been in Myanmar (over 8 million hectares), while in Cambodia 2.9 million hectares have been lost (Fig. 1). Forest degradation, although widespread, often goes unnoticed (Box 1). Standard forest cover definitions fail to capture changes in forests above 10% canopy cover (Fig. 2). Low reported stocking densities, falling timber production and increasing incidence of forest fire, all demonstrate widespread and increasing levels of forest degradation around the Subregion.

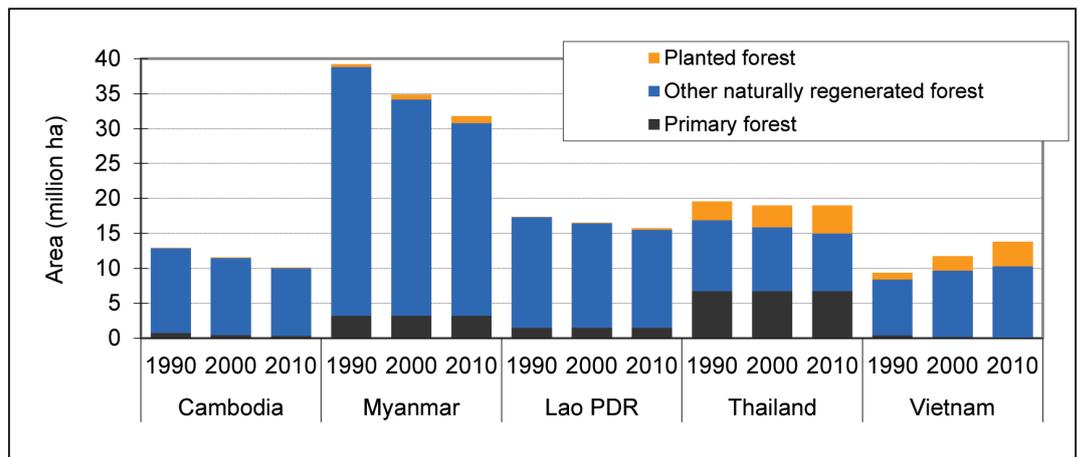
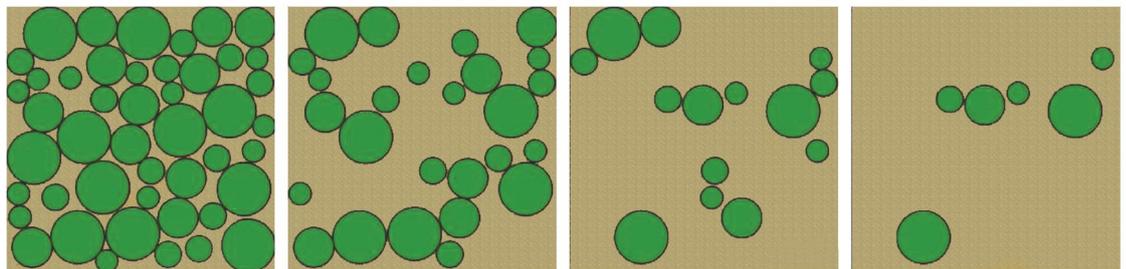


Figure 1. Forest area by category in GMS countries, 1990-2010.

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



Together, deforestation and forest degradation have resulted in a decline in the production of goods from natural forests, including wood and timber, non-wood forest products, and of ecosystem services including those related to carbon, water and biodiversity. Undoubtedly, the forest stewardship of the current generation will be judged harshly by our successors should these trends continue.

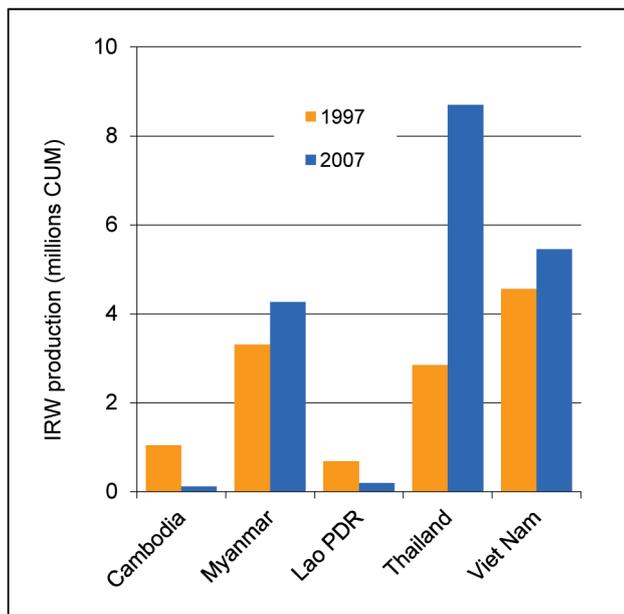
### Box 1. Forest degradation in Lao PDR

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

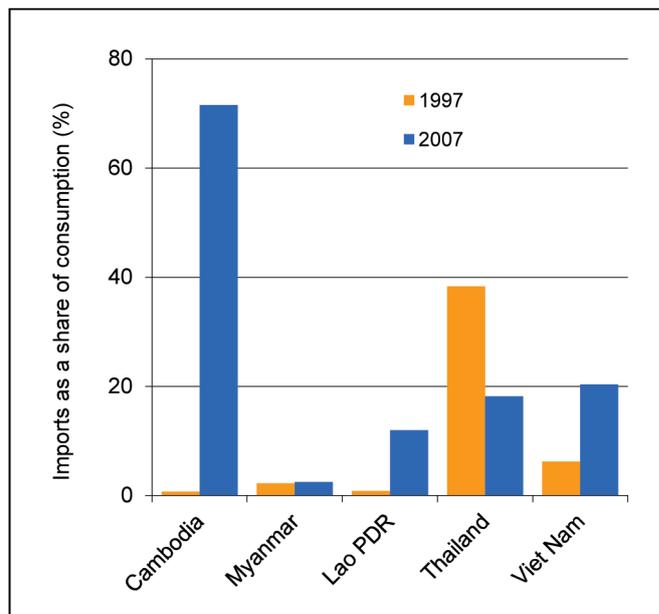
Source (FAO 2011)

In spite of falling production from natural forests, GMS industrial roundwood production rose by 51% between 1997 and 2007, led by Thailand and Viet Nam. Planted forest establishment has received considerable investment in these countries (Fig. 3). Production increases in Myanmar were largely accounted for by increased logging in natural forests, largely to supply markets in China. In Cambodia and Lao PDR, industrial roundwood production has fallen.

Concurrent investment in timber production, either through institutional strengthening to enable sustainable management of natural forests for production or through plantation development, has frequently been lacking. Roundwood equivalent (RWE) imports as a share of consumption have increased in all countries except Thailand (Fig. 4). In Cambodia, the steep increase in import dependence has largely been due to logging restrictions, while in Viet Nam, rapidly increasing industrial consumption of roundwood has driven up imports. Increased import dependence usually means outsourcing of jobs, loss of earnings and lost opportunities for domestic value addition.



**Figure 3. Industrial roundwood production in GMS countries, 1997 and 2007.**



**Figure 4. Roundwood equivalent imports as a share of consumption in GMS countries, 1997 and 2007.**



As GMS populations expand and incomes grow, demand for wood products, especially processed products such as panels and paper, is set to increase significantly. Dependence on wood products imports is increasing and although the Subregion is unlikely to suffer wood shortages, measures aimed at increasing forest protection related to environmental catastrophes, climate change or other issues may further increase dependence in the future. Under such circumstances, failure to recapitalize forest resources and maintain or increase future wood production potential may displace forest degradation to countries where forests remain intact, governance is weak and efforts to reduce forestry related CO<sub>2</sub> emissions are accorded low priority.

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 are, however, limiting the extent to which forestry sectors in the Subregion can realistically be expected to respond to international calls for emission reductions. Emissions reduction policies that stimulate economic activity, e.g., through investment in sustainable production of wood, may overcome some of the barriers to reducing emissions from forestry. Added value would also be derived from emissions reductions resulting from the use of wood rather than fossil fuels, or construction materials such as concrete, bricks, aluminium or steel.

The impacts of climate change are expected to affect most developing economies in Asia. The Subregion's protection forests are, however, generally poorly managed and increases in the incidence of landslides, floods, droughts, and disasters in coastal areas suggest greater attention is needed. This is particularly the case in view of climate change predictions for the Subregion, which include more frequent and violent storms, and greater danger of extensive soil erosion and landslides (**Box 2**).



### **Box 2. The nature of 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 the temperature is projected to increase by 0.7-0.9°C.

Changes in climate are expected to increase the 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).*

With reduction in the area of primary and other naturally regenerated forest in the GMS, biodiversity continues to be lost at a high rate. With forest conversion as the primary driver of species loss and agricultural expansion the main cause of forest conversion, a biodiversity crisis threatens Southeast Asia. Estimates are that between 13 and 42 percent of species will be lost in Southeast Asia by 2100, at least half of which could represent global extinctions (Sodhi *et al.* 2004). The GMS has an important role to play Southeast Asia given the uniqueness of the flora and fauna it contains.

Notwithstanding trends in primary and other naturally regenerated forests, efforts are being made, particularly in Viet Nam and Thailand, to recapitalize forestry sectors and restore forest ecosystems. While international discussions related to prevention of deforestation and degradation and an international agreement on forests have become protracted, the extent of planted forests in the Subregion has more than doubled between 1990 and 2010 from 4.1 to 8.8 million hectares – largely due to investments in Viet Nam and Thailand.

### **Box 3. Reforestation and plantation production.**

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

Improvements in plantation production of timber could have significant effects on the 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 Subregion may become economically viable sites for plantation development and assisted natural regeneration if newly developed financing mechanisms prove workable. Methods for reforesting these areas are well known and could be extended where institutional backing is provided.

Within Asia as a whole, the GMS, with its relatively low population densities, can play an important role in meeting future demand.



## 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. 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 likely to provide considerable support for forestry over the next decade. Given the opportunities that presently exist, funnelling start-up investment into accessing and acquiring additional financing seems appropriate.

Notwithstanding new opportunities for international support for forestry, the progress shown by countries in the Subregion demonstrates that national investment can act as a primary driver for forest protection and simultaneous forestry sector 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, while state run schemes have also proved their effectiveness.

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 both forest goods and the environmental services derived from forests. At the same time, calls for improved social and economic justice are likely to 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 forest area beginning to stabilise or rise in some countries in the Subregion, and in view of the high and increasing demands for agricultural land, focus should be directed towards improving forest quality and raising the production of environmental services per unit area through forest conservation and rehabilitation and afforestation/reforestation. Protected areas provide a widely recognized means of conserving ecosystems and species and much of the terrestrial biodiversity within the Subregion is contained within forests. 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 Subregion's biodiversity.

Recapitalization of the Subregion's forest resources is essential for a greener future. Continued high rates of economic growth in the Subregion 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 at a time when conducive conditions prevail.

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