



## A Framework for Action for Sustainable Development

# Forests

### At a glance

- + Forests cover 25-30 percent of the earth's land surface and contain about 80 percent of the world's remaining terrestrial biodiversity. Forests help to maintain the fertility of the soil, protect watersheds, reduce the risk of natural disasters—including floods and landslides—and mitigate global climate change by capturing carbon.
- + Conversely, deforestation and forest degradation contribute significantly to the planet's greenhouse gas emissions (about 17 percent according to the IPCC, though emissions may have declined in recent years). Despite reforestation efforts, more than 5 million hectares are still lost worldwide every year. Over the last 50 years, more forest has been lost or transformed than in any other historical period.
- + About 350 million people who live within or close to dense forests depend on both timber and nontimber products for their subsistence and income. Of those, about 60 million people (especially Indigenous Peoples) are wholly dependent on forests. They are key custodians of the world's remaining natural forests. If extensive areas of degraded forest land were restored to a mix of forests and agriculture, those mosaic landscapes could deliver a "triple win" by improving food security; increasing resilience to climate change; and helping maintain ecological services derived from forests, including greenhouse gas mitigation. Particularly in remote areas, people have relatively few economic alternatives to living off the forest, and forests provide an important safety net in times of economic or agricultural stress.
- + Forests represent a source of energy in many countries. In 2005, 65 percent of the total primary energy supply in Africa came from solid biomass such as firewood and charcoal. Wood-based fuel will continue to represent a principle source of energy in low-income countries and is increasingly viewed as a "green" alternative to fossil fuels in developed countries. If supplied sustainably and used efficiently to

generate heat and power, this renewable energy source could make a major contribution to reducing greenhouse gases and support integrated, productive landscapes.

### The challenge

Ultimately, we all rely on forests for climate regulation, carbon sequestration, biodiversity conservation, soil fertility, and water. Forests contribute to our economic, social, and environmental well-being, but their many values are often underestimated or ignored in comparison with other, often short-term, economic imperatives. Apart from wood, many forest goods and services are taken for granted and accessed freely, hiding the true costs of forest loss. Undervaluation of multiple forest services reduces the competitiveness of long-term sustainable forest management versus short-term gains from overexploitation and conversion to other land uses.

Pressure to clear forests for agricultural and residential land, cattle ranching, energy production, mining, and commodities is growing along with world population and lifestyle changes. In the past decade alone, about 43 million hectares of primary forest has been lost. Illegal logging and associated trade are taking a further toll on precious ecosystems, while forest plantations are currently unable to keep up with the demand for pulp, paper, charcoal, and timber, and are no substitute for the multiple other values of natural forests.

Alarmingly, the combined stresses of climate change, deforestation, and forest degradation may cause critical forest ecosystems, such as the Amazon, to be drastically affected and turn into savannas. This would produce additional social, biodiversity, and carbon losses.

### The future we want

Forests can help meet the growing demands for food, fiber, biofuel, shelter, and other bio-products as the world population increases to 9 billion people by 2050. Because forest resources are solar-powered, renewable, and store carbon as they grow, they also have the potential to reduce greenhouse gas emissions and mitigate climate change by taking the place of nonrenewable materials and substituting for fossil fuels.

In a landscape approach, trade-offs in the use of the land could be managed better than they are today. Land can be used more rationally to serve multiple needs, including food, fiber, and energy production, but also preserve critical habitats and cultural resources. Sustainable forest management can be applied over a range of forest and farm systems to serve multiple purposes as the lynchpin of healthy, productive, and resilient landscapes. Agroforestry, including nitrogen-fixing trees known to increase crop productivity, should be an integral part of climate-smart agriculture.

In the future we want, forests and trees will be harnessed to reverse soil erosion and land degradation, regulate critical ecological services, and protect biological diversity, while facilitating nature-based solutions to climate change. Forests will generate more and better employment, and greater tax revenues. And the rights of Indigenous Peoples and forest dwellers will be guaranteed so they may enjoy the resources and spiritual values of forests while their stewardship of collective assets, such as water provision, biodiversity, and carbon sequestration, is fairly rewarded. Responsible forestry operators and wood-product manufacturers will be rewarded for their sustainable forest production, while illegally sourced timber that does not reflect the true cost of production will progressively disappear from international and local markets.

## How do we get there?

Reducing forest loss has often been impaired by a narrow sectoral view on land management, which does not reflect the reality faced by those using land and forests. The idea that a holistic landscape approach provides a better foundation for action is gaining ground. Such a sustainable landscape approach—including climate-smart agriculture, landscape restoration, sustainable management of natural forests, plantation development and natural regeneration—has the potential to increase crop and tree productivity while protecting essential ecological and biodiversity functions. It is also expected to promote climate resilience and food security as well as increase access to affordable energy.

With the right policy choices, institutions, and investments, sustainably managed forests can become a source of inclusive economic growth, safety nets for rural dwellers, and economic drivers to reduce poverty. Forests can also provide ecological services beyond the immediate realm of forests. The potential of forests—like other natural capital—to contribute to sustainable development needs to be recognized in national accounts. Wealth Accounting and Valuation of Ecosystem Services (WAVES) helps countries incorporate the value of natural capital in national accounts and achieve the 2020 targets of the Convention on Biological Diversity regarding the valuation of biodiversity in development and poverty reduction strategies and national accounting and reporting.

Through sustainable forest management we can produce timber and nontimber products in a manner that places value on standing forests and motivates communities and governments to maintain a source of jobs and taxes and indirect benefits such as education, job training, and health care. Sustainable forestry provides a reliable framework for resource development that can involve building community businesses, establishing long-term forest concession programs, developing plantation incentive policies, and improving the governmental administration of public goods to highlight the long-term economic, social, and environmental benefits of forests

over short-term gains. Scientific management systems need to be supported by accountable governance providing regulatory controls, law enforcement, and fiscal and tax policies that reinforce an appropriate sense of resource scarcity and protection of social values.

Consumer demand for goods that are sustainably produced is growing and can provide economic incentives for sustainable wood product manufacturing. Private sector involvement, through market-based instruments such as certification schemes, Voluntary Partnership Agreements, and commodity roundtables, can help transform markets and enhance sustained trade related to forests. Sustainably produced wood can also substitute for fossil fuels and nonrenewable materials, for example, in construction, even on an industrial scale.

International climate negotiations recognize that efforts to combat climate change must include nature-based solutions reducing emissions from deforestation and forest degradation (REDD+), which aims to support countries' efforts to slow rates of forest destruction, a significant source of greenhouse emissions. Through REDD+, countries can access sources of performance-based payments for protecting and restoring forests.

Finally, involving local communities and indigenous peoples, who are key custodians of the world's remaining natural forests, can help protect the earth's most precious forest assets. While important inroads have been made in terms of community managed forests, forest dwellers often lack legal recognition of land tenure and their customary rights, do not have access to resources, and are sometimes marginalized by the creation of industrial concessions or protected areas. In other areas, they do not have the business administration or forest management skills to adequately manage their resources. Removing some of these obstacles to community forestry and strengthening forest governance can go a long way toward more inclusive and equitable management of resources. Program safeguards, grant mechanisms, and capacity building are tools to help ensure that all stakeholders are given a more prominent voice and vote in development that affects them.

## References and suggested readings

- BioCarbon Fund: [www.biocarbonfund.org](http://www.biocarbonfund.org).
- Collaborative Partnership on Forests. Forthcoming. "Factsheets on Sustainable Forest Management."
- Convention on Biological Diversity. Aichi Biodiversity Targets. Accessed on 5/1/2012. <http://www.cbd.int/sp/targets/>.
- FAO. 2008. "Forests and Energy: Key Issues." <ftp://ftp.fao.org/docrep/fao/010/i0139e/i0139e00.pdf>.
- Forest Carbon Partnership Facility: [www森林carbonpartnership.org](http://www森林carbonpartnership.org).
- Forest Investment Program: [www.climateinvestmentfunds.org/cif/node/5](http://www.climateinvestmentfunds.org/cif/node/5).
- Global Partnership on Forest Landscape Restoration. 2011. Conference: "Bonn Challenge on Forests, Climate Change and Biodiversity 2011." Bonn, Germany, September 2, 2011.
- Millennium Ecosystem Assessment. 2005. *Ecosystems and Human Wellbeing: Synthesis*. Washington, DC: World Resources Institute.
- UNEP. 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*.
- UNEP. Multiple years. The Economics of Ecosystems and Biodiversity. <http://www.teebweb.org>.
- Vergara, Walter, and Sebastian Scholz. 2010. *Assessment of the Risk of Amazon Dieback*. Washington, DC: World Bank.
- Wealth Accounting and Valuation of Ecosystem Services (WAVES) brief. Forthcoming.
- World Bank. Forthcoming, May 2012. *World Development Report 2012: Inclusive Green Growth. The Pathway to Sustainable Development*. Washington, DC: World Bank.