

Policies to Reduce Biodiversity Loss and Enhance Human Development Require a Concerted Approach

Both poverty and economic development affect global biodiversity and the provision of ecosystem goods and services. More food, water, and firewood are needed to sustain population growth, especially in the poorer parts of the world. At the same time, expected rising levels of affluence in emerging economies will add to the demand for products like meat, construction timber, and paper. When current technologies and consumption patterns prevail, increased global consumption by a larger and richer population will drive:

- expansion of agriculture, forestry, and bio-energy production;
- intensification of production, leading to overexploitation and pollution from excess nutrients and contaminants; and
- higher exploitation of remaining natural ecosystems.

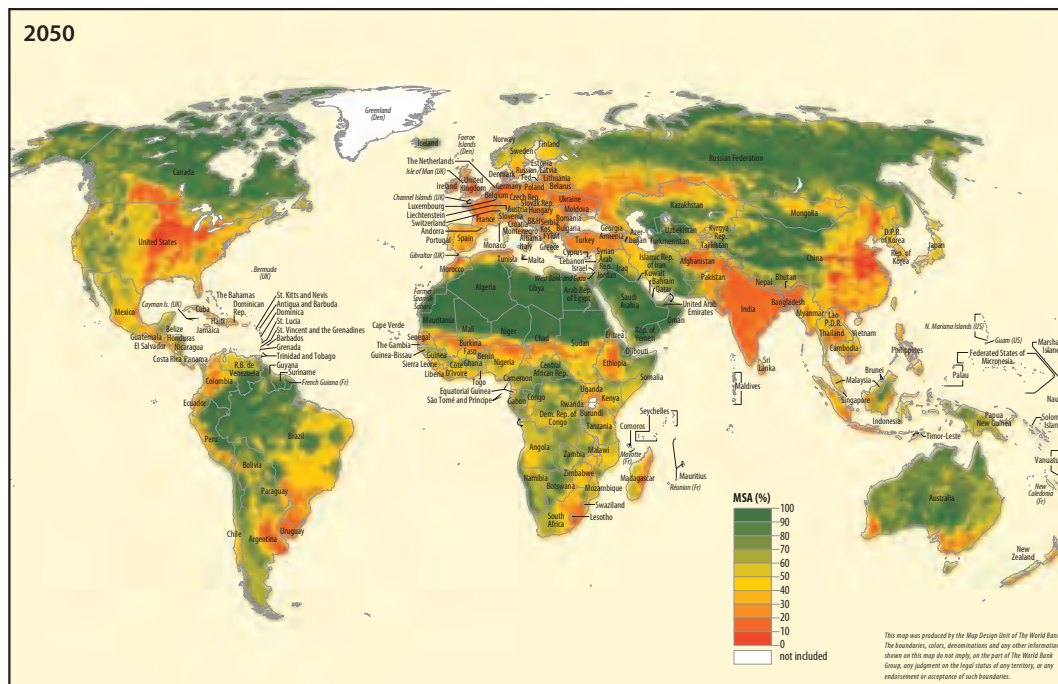
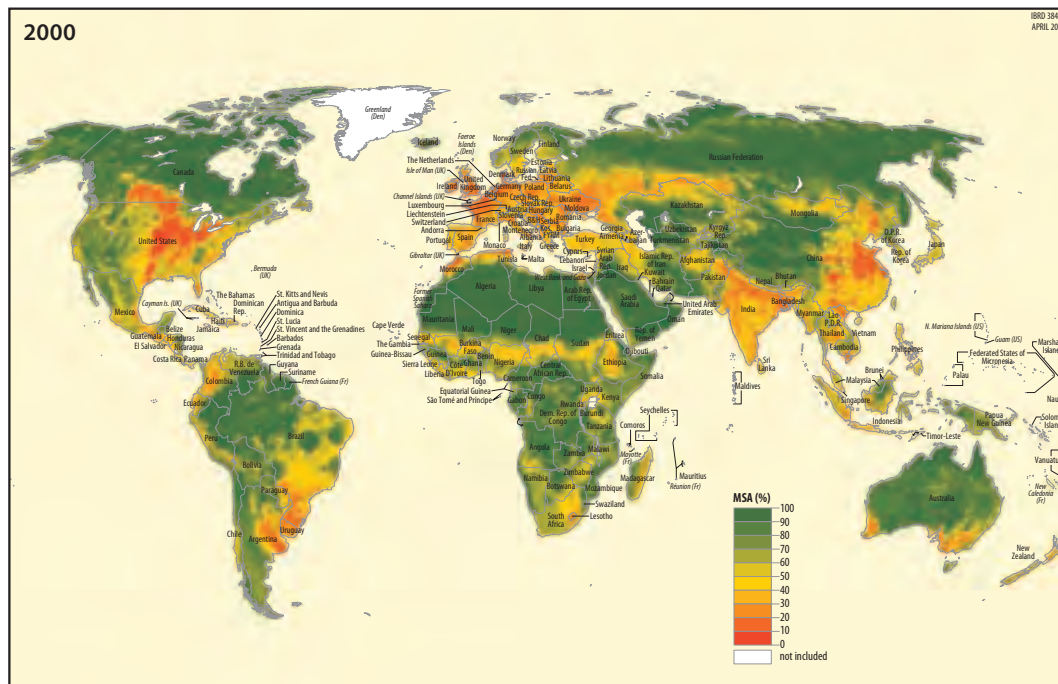
In the context of rising demand for food, water, and firewood, growing populations that lack the capabilities to minimize environmental impacts of production will be more susceptible to overexploiting and degrading their livelihoods. As a consequence of land

use expansion and more intense use, global biodiversity loss will continue unabated or accelerate without additional policies.¹ Largest losses are expected in Central and South America, South Asia, and Sub-Saharan Africa (map A2.1).

The importance of biodiversity for development is recognized by Millennium Development Goal 7, which includes targets to “reverse the loss of environmental resources” and “reduce biodiversity loss.” However, there is scant quantitative evidence on ways in which especially poorer people depend on biodiversity, although patterns can be distinguished. In general, it seems that poor people depend more on renewable natural resources than on biodiversity. However, the value of biodiversity aspects in terms of risk insurance, ecosystem resilience, and larger area ecosystem services (such as temperature regulation) still represents a large knowledge gap.²

Traditionally, policies to reduce biodiversity loss focus on area protection measures. However, these measures have no effect on the unprotected surrounding areas. Furthermore, expanding protected areas and reducing deforestation would impose limits on

MAP A2.1 Average change in species populations, relative to the intact situation (mean species abundance or MSA), 2000 and 2050



Source: PBL 2010, http://www.pbl.nl/en/publications/2010/Rethinking_Global_Biodiversity_Strategies.

agricultural land expansion, pushing land and food prices upward. This would especially affect urban people who depend on the market for their food. Therefore, additional measures should include smarter and better-managed land use, alternative consumption patterns, and the development and application of technologies to increase production efficiency per hectare. Measured by food prices, these routes would provide relief for urban poor, increasing food security and affordability. However, rural poor people are oftentimes particularly vulnerable to changes in land values and uses. Potential increases in natural rents could affect rural poor for whom land entitlements are not adequately arranged, making them vulnerable for displacement by larger landholders with access to technology and markets.

In conclusion, policies to reduce biodiversity loss and enhance human development require a concerted approach. Some of these options are already being discussed at the international level; others appear to be more contentious (changing consumption patterns), requiring careful consideration at the national level, and will be dependent on voluntary approaches. This requires broadening the scope of biodiversity policies on all levels of decision making. Although most management decisions affecting biodiversity and ecosystem goods and services are made at a local level, these local decisions are conditioned by national and international policies beyond

nature conservation. International policy domains, including agricultural and forestry sector policies, development assistance (including the role of international financial institutions) and international trade provide clear opportunities to integrate biodiversity and ecosystem goods and services in their policies in ways that can support poverty reduction as well as sustainable use and conservation of natural resources.³

Notes

1. PBL 2010.
2. CBD 2010.
3. Kok et al. 2010.

References

- CBD (Convention on Biological Diversity). 2010. "Linking Biodiversity Conservation and Poverty Alleviation: A State of Knowledge Review." Technical Series No. 55, Montreal, Canada.
- Kok, M. T. J., S. Tyler, A. G. Prins, L. Pintér, H. Baumüller, J. Bernstein, E. Tsioumani, H. David Venema, and R. Grosshans. 2010. "Prospects for Mainstreaming Ecosystem Goods and Services in International Policies." *Biodiversity* 1 (1–2): 45–51.
- PBL (Netherlands Environmental Assessment Agency). 2010. *Rethinking Global Biodiversity Strategies: Exploring Structural Changes in Production and Consumption to Reduce Biodiversity Loss*. Bilthoven, Netherlands.