

New study finds biodiversity conservation secures ecosystem services for people

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Healthy ecosystems that provide people with essential natural goods and services often overlap with regions rich in biological diversity, underscoring that conserving one also protects the other, according to a new study.

Titled *Global Conservation of Biodiversity and Ecosystem Services*, the report confirms the value of making biological diversity a priority for conservation efforts. It shows that more than 70 percent of the world's highest priority areas for biodiversity conservation also contain significant value in ecosystem services such as fresh water, food, carbon storage, storm buffers and other natural resources that sustain human life and support social and economic development.

Scientists from Conservation International (CI), the Gund Institute for Ecological Economics at the University of Vermont, and the Global Environment Facility found that the value of ecosystem services in the 7 percent of the planet of greatest biodiversity conservation priority was more than double the global average. Overall, the annual value of the world's ecosystem services is estimated at \$33 trillion, or greater than the gross national product of all nations combined.

“This paper clearly shows that in many places in the world, strategies targeted at conserving threatened biodiversity also help protect ecosystems, thereby improving human well-being and alleviating poverty,” said Thomas M. Brooks, CI senior director for conservation synthesis and one of the paper's authors.

The report, published in the November 2007 issue of BioScience magazine, proposes conservation strategies that protect both biological diversity and ecosystem services to increase the efficiency of dollars and efforts spent. It identifies tropical forests as places of particularly high overlap of priorities because of their biological diversity and ecosystem services essential to the welfare of many of the world's 1 billion people living in extreme poverty.

Significantly, there are many opportunities for conserving both species and ecosystem services together, especially in the Amazon Basin, the Congo Basin, Madagascar, Borneo and New Guinea. Protecting these intact forests is critical to reducing emissions from deforestation in developing countries while also supporting the livelihoods of traditional and indigenous peoples.

With climate change recognized as the greatest environmental threat facing the planet, the study provides a timely reminder that investments to maintain healthy ecosystems and their restorative powers is cost effective for biodiversity, the livelihoods of local people and economic development, and as a way to protect the CO₂ stored in these areas from release.

“Protecting intact tropical forests is critical for reducing emissions from deforestation in developing countries,” said Will R. Turner, a CI ecologist who also was an author of the paper. “We need to conserve these forests for the benefit of local populations and the world as a whole.”

Restoring destroyed forests also is necessary to help damaged habitat recover, ensure the persistence of species, and restore critical ecosystem services, particularly in regions with large human populations such as Brazil's Atlantic Forest and much of Southeast Asia.

Source: Conservation International

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