

BIODIVERSITY

The 2030 Agenda for Sustainable Development's vision of a sustainable and equitable future for people and planet depends on the goods and services contributed by the world's ecosystems and the biodiversity within them.

Yet over the last century, there has been an unprecedented loss of this biodiversity from habitat destruction, overexploitation, pollution, climate change, and the introduction of invasive alien species. All of these problems are the result of human activity.

A 2015 study by the UN Environment World Conservation Monitoring Centre, the Natural History Museum and British universities showed that by 2005 land-use change alone had caused a decrease of 13.6% in the average number of species found in local ecosystems, compared to the pre-industrial era. We now face sudden and irreversible change that could compromise our planet's ability to support human development. Urgent action is needed to halt this decline.

UN Environment's Biodiversity and Ecosystem Services Unit prioritizes this action, working with the Global Environment Facility (GEF) to arrest the decline in biodiversity and conserve ecosystem services for the benefit of current and future generations. We have worked together on over 350 projects, helping more than 150 countries improve and expand their action on biodiversity.

CASE STUDY

Protecting biodiversity, balancing benefits

The tiny community of Pinakota Grama Panchayat in India's rural Andhra Pradesh State is surrounded by dense tropical forest. Many of its residents earn their livelihoods from the forest, collecting or farming non-timber produce, including plants such as 'the King of Bitters' (*Andrographis paniculata*).

The local community has used this plant for centuries to treat conditions from stomach pain and intestinal worms to malaria and snakebites, and with the benefits of traditional herbal medicines increasingly recognized in the developed world, there is rising demand for the plants, giving the villagers the opportunity to sell their produce for cash.

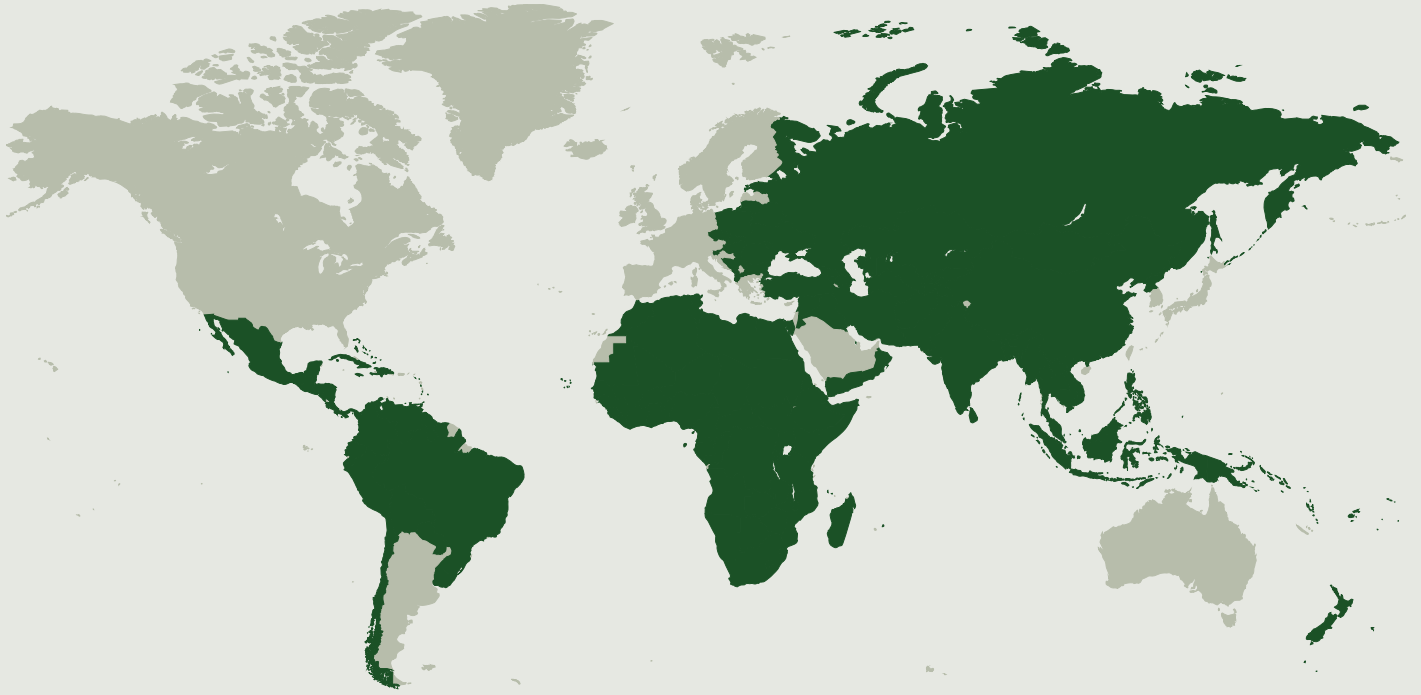
Unfortunately, the residents have little control over this market and are vulnerable to unscrupulous traders who can exploit them and sell the produce to pharmaceutical companies at high margins. In addition, there is a real danger that overexploitation could result in these plants disappearing forever – both reducing the forest's genetic diversity and depriving local people of valuable medicine and income.

With GEF support, UN Environment is addressing these issues through an Access and Benefit Sharing project. Working with the Government of India in 10 states, the project is enabling equitable access to biological resources, assessing their economic value and better sharing their benefits amongst local people.

One result is the creation of local biodiversity funds. Fees are levied on those who collect the biological produce of the forest for commercial purposes. This money is used for conservation activities, such as the distribution and planting of seedlings.

"Due to the project we are able to get benefits from the resources available in our village, and the livelihoods of the people have increased," says Krupa Shanthi, chair of Pinakota Grama's new Biodiversity Management Committee, which is responsible for conserving and documenting the area's diverse flora and fauna. "We are able to avoid middlemen in resource transactions and earn more income. These benefits have helped us to work towards biodiversity conservation."

By bringing together the villagers, traders, and businesses involved in the market for herbal medicines, the project has shown that it is possible for local people to benefit from the rich biodiversity of their homeland, while still preserving these resources for generations to come.



■ UN Environment-GEF Biodiversity and Ecosystem project countries

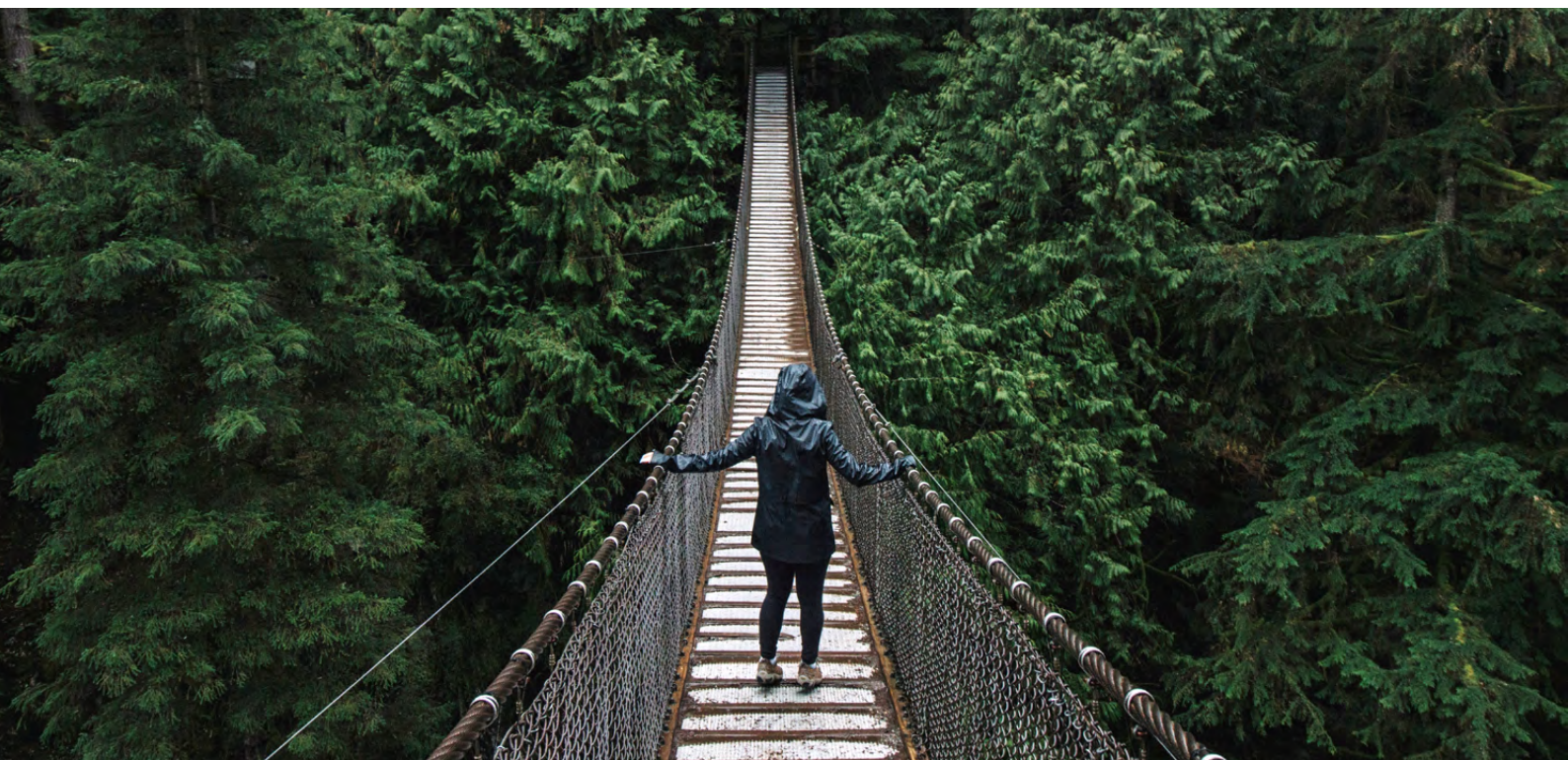
The UN Environment-GEF partnership in Biodiversity

The work of the UN Environment-GEF partnership is guided by the strategic framework of various Multilateral Environmental Agreements and voluntary accords; in particular, the Convention on Biological Diversity, and its Aichi Biodiversity Targets, and the 2030 Agenda on Sustainable Development. Since 1991, the GEF has invested over \$660 million in UN Environment-led initiatives to conserve and promote biodiversity.

Projects range from small-scale enabling activities that help countries develop national strategies to meet their convention obligations, to larger-scale regional and global projects, and include:

- Assisting countries to improve the sustainability of protected area systems such as national parks and biosphere reserves
- Helping countries to effectively conserve biodiversity in productive landscapes and sectors
- Developing capacity for all countries to benefit from and share their genetic resources and the traditional knowledge that goes with them
- Helping countries to integrate conservation and sustainable use of biodiversity into national planning processes

All dollar (\$) amounts refer to US dollars.



Why UN Environment?

The UN Environment-GEF partnership draws on excellent multidisciplinary expertise, both in-house and through strategic partnerships. Our strengths are evident from the scope of our involvement in the field of biodiversity, from internationally recognized technical expertise and influence in policymaking, to decades of hands-on experience implementing projects across the world.



Global policy



Our mandate, expertise, contacts and ability to convene partners from around the globe have enabled UN Environment to play a central role in negotiating, informing and implementing a number of key Multilateral Environmental Agreements that are relevant to the GEF Biodiversity focal area. For example, UN Environment currently hosts the secretariats for the:

- Convention on Biological Diversity (the GEF is the financial mechanism)
- Convention on the Conservation of Migratory Species of Wild Animals
- Convention on International Trade in Endangered Species of Fauna and Flora

Technical expertise and resources



Recognized as leading experts in the field of biodiversity, the UN Environment team continues to produce cutting-edge research, work tirelessly against the illegal wildlife trade, and administer the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

UN Environment-supported publications that have been key in highlighting areas for intervention, developing the global knowledge base and driving innovation include:

- Diversifying Foods and Diets: Using Agricultural Biodiversity to Improve Nutrition and Health
- Ecosystem Services and the Macroeconomy: A Review of Linkages and Evaluation of Analytical Tools
- Integrated Management of Peatlands for Biodiversity and Climate Change
- Integrating Ecosystem Services in Strategic Environmental Assessment: A Guide for Practitioners
- Invasive Alien Plants and their Management in Africa
- Success Stories in Mainstreaming Ecosystem Services into Macroeconomic Policy and Land Use Planning: Evidence from Chile, Trinidad and Tobago, South Africa and Viet Nam
- Tropical Fruit Tree Diversity: Good Practices for In-situ and On-farm Conservation

Project highlights



- **Biosafety:** Genetically modified organisms play a significant role in the world's economy, but it is necessary to guard against potential risks, such as cross-contamination and damage to biodiversity and human health. UN Environment is the lead agency in this field and has helped over 120 countries to create national biosafety frameworks, as well as assisting more than 70 to implement those frameworks, backed by scientific tools for assessing and managing technical, environmental and socio-economic risks. Results have included the implementation of emergency response plans for biological threats, as well as the safe trial and release of game-changing crop varieties in countries such as Bangladesh, Ghana, India and Nigeria
- **Agricultural Biodiversity:** For the last 15 years, UN Environment has provided ongoing support to more than 35 partner countries, demonstrating the potential of agricultural biodiversity to contribute to better nutrition, increased food security, resilience to climate change and improved wellbeing in rural communities. These GEF-supported projects have strengthened policy and legislative frameworks, working across sectors from agriculture, to environment, public health and education, to build capacity, generate knowledge, identify and promote best practices, and integrate biodiversity conservation into sector and institutional practices, strategies and policies
- **Green Economy and Finance:** To conserve biodiversity, we must prove its value so countries and communities understand the importance of proper management. Through providing valuations of ecosystem services in Trinidad and Tobago, South Africa, Chile and Viet Nam, the GEF-funded ProEcoServ project enabled the inclusion of ecosystem services in national and local policy and planning – including Viet Nam's National Strategy for Green Growth and National Strategy for Environmental Protection, Trinidad and Tobago's National Spatial Development Strategy, and South Africa's National Development Plan, ensuring full consideration of environmental costs and benefits in development decision making
- **Access and Benefit Sharing:** Fair and equitable sharing of the benefits arising out of the use of genetic resources is a key objective of the Convention on Biological Diversity. As the administrative host of the Convention, UN Environment has played a key role in its implementation, including assisting in bringing the Nagoya Protocol on Access and Benefit Sharing into force in 2014. Advancing Access and Benefit Sharing and the utilization of genetic resources to support national sustainable development efforts is a key part of our work in Biodiversity. We support countries to implement the legal, administrative and policy frameworks needed to enable Access and Benefit Sharing and are currently assisting 67 Parties globally with the preparation of their Interim National Reports to the Nagoya Protocol. Highlight projects include initiatives in Ethiopia, where we are assisting the government in the creation of an Access and Benefit Sharing regime for the fair use and conservation of medicinal plants, in the Caribbean, where we are assessing the region's bio-prospecting potential to raise awareness of Access and Benefit Sharing, and in India, where we are supporting 10 states to establish state- and local-level biodiversity databases and biodiversity management committees, giving communities a leading role in conserving and sharing the benefits of their local flora and fauna

“We know ecosystems are more than just resources to be exploited, but it is only by valuing the multitude of services our natural capital provides that we can truly understand what we stand to risk or gain through our environmental choices.”

Erik Solheim, Executive Director,
UN Environment



Towards a sustainable future

The alarming loss of biodiversity is the loss of an essential foundation of life and part of the shared wealth of the planet. But we can still do something about it. The UN Environment-GEF partnership is developing integrated approaches and projects to address the problem.

Working closely with the secretariats of Multilateral Environmental Agreements, other UN agencies and external partners, future efforts will be focused on six priority themes:

- Integrating ecosystems and biodiversity into seascape and landscape planning and development, especially in regions with high biodiversity or ecosystem service values
- Accounting for the real value of biodiversity and ecosystem services in development and financial planning; UN Environment already plays a leading role in ecosystem accounting, which links ecosystem changes to human

- Integrating biodiversity concerns (biosafety, illegal wildlife trade, invasive alien species) into border security by improving policy frameworks, building capacity (knowledge and equipment), and raising public awareness
- Mainstreaming biodiversity into agriculture, forestry, fisheries, tourism and extractive industries, and reducing their impact on biodiversity by removing harmful subsidies and providing incentives for biodiversity-friendly practices
- Reducing demand for illegal wildlife species and products – a long-term effort is needed to bring about a fundamental change in society and target the consumers of these products.

For more than 30 years, UN Environment has played a leading role in developing and advancing the international agenda on biodiversity, and has collaborated with the GEF on biodiversity projects since its establishment in 1991. Together, we represent an ideal choice for countries seeking to implement and fund

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