



# Sustainable landscapes and food

SDGs in focus



Read all Sustainable landscapes and food highlights: [ar2016.cifor.org/SLF](http://ar2016.cifor.org/SLF)

Approximately one billion people worldwide rely on forests for food and income in some way. Wild meat and freshwater fish are essential components of the diets of many vulnerable rural communities, and both subsistence and commercial farmers depend on trees and forests for water and nutrient cycling, climate regulation, pollination and pest control. With concerns surrounding food security high on the international agenda, countries are working towards meeting a wide range of commitments under the Sustainable Development Goals (SDGs), including targets on food and nutrition.

The Center for International Forestry Research (CIFOR) recognizes that countries need strategies to alleviate poverty while building environmental resilience. Forests and trees can play a crucial role in these strategies. [Landscape approaches](#) – which integrate a wide range of policies and practices aimed at resolving competition for land – have the potential to address local challenges and help meet national and international commitments.

## Research priorities

### Integrating diverse viewpoints in the sustainable landscapes debate

- **Putting the landscape approach into practice:** A few years ago, CIFOR and partner institutions developed a set of [10 principles](#) that provide an implementation framework for landscape approaches. CIFOR will be undertaking research in Burkina Faso, Indonesia and Zambia to see if applying these principles can help lower carbon emissions and increase the sustainable use of biodiversity.
- **Landscape approaches in the tropics:** CIFOR is researching how landscape approaches can help meet socioeconomic and environmental challenges in several tropical countries. This includes focusing on how they can help align global environmental commitments with local needs, how trees contribute to food and overall livelihood strategies within the landscape, and what mechanisms are in place to finance landscape projects.

### Making the case for policies that integrate forestry and agriculture

- **Agrarian change in tropical landscapes:** This [multi-country project](#), coordinated by CIFOR, explores the conservation, livelihood and food security implications of the land-use shift from forests to farmland at the landscape level. Research explores changing forest cover, farming practices and conservation issues in Bangladesh, Burkina Faso, Cameroon, Ethiopia, Indonesia, Nicaragua and Zambia. CIFOR is also studying responses to agricultural change in these environments, focusing on poverty, food security, dietary diversity, agricultural yields, biodiversity, migration and land tenure.

- **Agroforestry in Indonesia:** The second phase of the [Kanoppi Project](#), focuses on developing and promoting Indonesian market-based agriculture that integrates tree cultivation. CIFOR is also working on ways to help smallholders improve landscape management for forestry.
- **Ecosystem services:** We are assessing the role of pollination agents in oil palm plantations in Indonesia to determine the optimum landscape configuration for better forestry and agricultural outcomes.
- **Forest incomes for environmental sustainability:** We are supporting the Government of Liberia and USAID in the co-management of community forests for multiple benefits including ecosystem services for agriculture, livelihood incomes and climate change adaptation strategies.
- **Gender composition for resource management:** Based on an extensive systematic review we are assessing the [role of gender in the management of forestry and fishery resources](#).

### Increasing the availability of diverse nutrient-rich foods and enabling vulnerable populations to access them

- **Forests and food security:** Drawing on data from the Poverty and Environment Network (PEN) across 24 tropical countries, CIFOR researchers compared forest food intake with dietary recommendations, in order to estimate the contributions of forests to nutrition.
- **Oil palm in Indonesia:** CIFOR is looking at how the shift from traditional agriculture to oil palm production affects children's diets in Indonesia.
- **Fish and forests in the Congo Basin:** Research is investigating how forests contribute to wild fish production and how this in turn affects local diets.

- **Forests and nutrition in sub-Saharan Africa:** CIFOR is working to understand the ways that forest foods contribute to food security and nutrition in Burkina Faso, Cameroon, Ethiopia, Uganda and Zambia.
- **Bushmeat:** Millions around the world hunt wild animals for food and income, which can negatively impact biodiversity. Researchers are quantifying how much wildlife is being hunted, the extent of bushmeat consumption, the financial benefits from its trade and the impact of wildlife hunting on livelihoods and the environment. CIFOR is part of the Bushmeat Research Initiative (BRI) and the Collaborative Partnership on Sustainable Wildlife Management (CPW).

- **Sustainable development:** In order to achieve the greatest impact, all of CIFOR's sustainable landscapes and food work is aligned with the Sustainable Development Goals, especially Goal 2: Zero hunger and Goal 6: Clean water and sanitation, as well as Goal 3: Good health and well-being and Goal 15: Life on land. For a broader discussion as to how sustainable landscapes can contribute to the SDGs, please see: [cifor.org/pid/5864](http://cifor.org/pid/5864).

## The way we work

- **'Body of work' approach:** Each individual project contributes to CIFOR's overall understanding of how landscapes can be managed sustainably in order to provide nutritious food and ecosystem services, and particularly of how forests sustain agriculture.
- **Integrating forestry into mainstream policy:** Research focuses on building an evidence base showing how forests and trees contribute to healthy and diverse diets and other land uses.
- **Capacity building:** Training and knowledge sharing are built into all of CIFOR's core priorities and projects, with many graduate students involved in research activities.

## Outreach

CIFOR's landscapes and food team engaged with partners and events across the world to discuss bushmeat, nutrition and landscape approaches. In partnership with the Food and Agriculture Organization of the United Nations (FAO), CIFOR produced a report from the High Level Panel of Experts on Food Security and Nutrition that details evidence and analysis of the diverse, direct and indirect ways forests and trees contribute to food security and nutrition. CIFOR's work on the role of bushmeat in food security and nutrition contributed to a decision adopted by the Conference of the Parties to the Convention on Biological Diversity requesting member countries to work with indigenous peoples and local communities on a road map to sustainable use of wildlife. CIFOR scientists were also active at IUFRO's Global Forest Expert Panels for forests and food security, the Global Landscapes Forum and the FLARE Annual Meeting.

## Story of change

### First milestones toward safeguarding Pygmies' rights

Two CIFOR-led studies shed timely light on a vulnerable indigenous group: first by estimating how many Pygmy communities are scattered throughout the Congo Basin, then mapping how much bushmeat they harvest compared to non-Pygmies.

The demand for bushmeat is growing in both rural and urban populations in the Congo Basin, fueling a lucrative trade that threatens to leave behind 'empty forests'. For indigenous people like the Pygmies, wild meat is often more of a necessity than a delicacy. But little was known about their relative impact on forest resources – until CIFOR research revealed their bushmeat footprint is much smaller than their neighbors'.



Photo by Youssef/CIFOR

**Project:** Sustainable Management of the Wildlife and Bushmeat Sector in Central Africa.

**Countries:** Five countries in the Congo Basin.

**Read more:** [ar2016.cifor.org/SLFstory](http://ar2016.cifor.org/SLFstory)



RESEARCH PROGRAM ON  
Forests, Trees and  
Agroforestry

The CGIAR Research Program on Forests, Trees and Agroforestry (FTA) is the world's largest research for development program to enhance the role of forests, trees and agroforestry in sustainable development and food security and to address climate change. CIFOR leads FTA in partnership with Bioversity International, CATIE, CIRAD, ICRAF, INBAR and TBI.



### Center for International Forestry Research (CIFOR)

CIFOR advances human well-being, equity and environmental integrity by conducting innovative research, developing partners' capacity, and actively engaging in dialogue with all stakeholders to inform policies and practices that affect forests and people. CIFOR is a CGIAR Research Center, and leads the CGIAR Research Program on Forests, Trees and Agroforestry (FTA). Our headquarters are in Bogor, Indonesia, with offices in Nairobi, Kenya; Yaounde, Cameroon; and Lima, Peru.

