



RESEARCH
PROGRAM ON
Forests, Trees and
Agroforestry

CGIAR Research Program on Forests, Trees and Agroforestry

Livelihoods, Landscapes and Governance





CGIAR Research Program on Forests, Trees and Agroforestry (CRP-FTA)

CRP-FTA is a long-term, collaborative program of interconnected, multidisciplinary research projects led by the Center for International Forestry Research (CIFOR) in partnership with Bioversity International, the International Center for Tropical Agriculture (CIAT), Agricultural Research for Development (CIRAD) and the World Agroforestry Centre (ICRAF).

The research conducted under CRP-FTA tackles some of the most serious challenges facing humanity today – climate change, food security, poverty and diminishing ecosystem services.

The challenges of diminishing ecosystem services and poverty cross disciplines, sectors and institutions, and so too must research, policy and practice. CRP-FTA uses an approach to research that is strategic, targeted and collaborative to concentrate on impact and to advance knowledge. Since 2011, the program has generated a large volume of knowledge, technology, and institutional and policy innovations.

The program's research targets 46% of Earth's forest cover and approximately 500 million people for whom trees and forests are key resources in Asia, Africa and Latin America.

CRP-FTA comprises five core research themes, with cross-cutting themes of gender and sentinel landscapes. The design integrates capacity strengthening, partnership building and knowledge sharing.

Partnership building and collaboration

By aligning the expertise of four CGIAR centers and their international networks, the program leverages partnerships to make the most of resources and knowledge and to avoid duplication and fragmentation. The centers have formal research partnerships with more than 80 global, national and subnational institutions.

Capacity strengthening

Capacity strengthening is built into the projects so that they develop sufficient skills and information among users of research outputs to continue to generate and apply knowledge on their own. In 2012, the program conducted almost 100 workshops in nearly 40 countries for a total of 3,000 participants.

Knowledge sharing

The communications team employs a range of media and international networks to increase reach. In the first year of the program, the centers published hundreds of journal articles, online reports, guidelines, toolkits, working papers and policy briefs and took part in influential conferences.

Which trees and forests?

More than two-thirds of terrestrial ecosystems can be identified as forests and woodlands. But trees are an important element in other systems too, including agricultural landscapes, grasslands, steppes and deserts. The complexity associated with the ecological, cultural and socioeconomic variation between and within regions requires a broad diversity of research strategies.



Research designed for impact

Impact-oriented research

All CRP-FTA research activities are embedded in specific impact pathways, which link research outputs to outcomes and, ultimately, impacts. How CRP-FTA research is hypothesized to lead to outcomes and impacts is described in CRP-FTA Theories of Change, which have been developed at a general level for the CRP and at a more detailed level for each flagship project. The program's Monitoring, Evaluation and Impact Assessment system provides evidence to evaluate the program's effectiveness and returns on investments. It also serves as an adaptive management mechanism to learn from what works best and where to focus future efforts.

Research theme



Smallholder production systems and markets

Objectives

- To enhance the productivity of smallholder trees and forests and their contribution to income, food security and nutrition
- To increase smallholder participation in tree and forest product markets
- To strengthen policies and institutional arrangements that support smallholders in sustainable exploitation of tree and forest resources

Some of our research activities and achievements

- Generation and delivery of improved tree germplasm of high-value species in West Africa and India; development of new propagation methods for high-value tree species in Africa.
- Analysis of forest product value chains across Africa and Asia, with recommendations for improving rural livelihoods, including through greater market access for women.
- Development of new tools to customize tree species and management options to field, farm and landscape niches, promoting tree diversity and more resilient livelihoods and landscapes.

Research theme



Management and conservation of forest and tree resources

Objectives

- To increase the likelihood that important forest and tree resources will be available for future generations
- To improve the well-being of the poor whose livelihoods depend on these resources

Some of our research activities and achievements

- Development of the Global Strategy for the Conservation and Use of Cacao Genetic Resources, through a consultation process that drew upon expertise of the global community. The strategy provides a clear framework for the conservation and use of cacao diversity.
- Analysis of how smallholder agroforestry systems contribute to farmer-based conservation of genetic resources.
- Evaluation of the compatibility of timber harvesting with the harvest of brazil nuts, which supports thousands of rural families in Western Amazonia.
- Activities in India and Malaysia to help women gain more benefits from tropical fruit trees.

Research theme



Landscape management for environmental services, biodiversity and livelihoods

Objectives

- To determine how society can best manage multifunctional landscapes
- To balance the provisioning functions of ecosystem good and services with the maintenance of natural capital and social inclusiveness

Some of our research activities and achievements

- Synthesis of research on landscape management, focusing on greenhouse gas emissions arising from oil palm cultivation and land use change patterns in Indonesia.
- Overview of ecosystem services and how decision makers can be influenced, which highlights the importance of the landscape scale for understanding trade-offs and the societal mechanisms for addressing them.
- Development of guidelines for combining conservation and livelihood goals around protected areas, adopted in international forums.
- Testing of new approaches to analyzing gender specificity in land-use decision making.

Research theme



Climate change adaptation and mitigation

Objectives

- To contribute to the development of new forest and climate regimes and subnational initiatives
- To shape global regulatory systems as well as governance and financing priorities for forest-related mitigation and adaptation measures

Some of our research activities and achievements

- Measurement of wood parameters and density to quantify the impact of climate changes and predict future climate.
- Analysis of human vulnerability to the impacts of climate change on forestry and agroforestry systems and livelihoods.
- Creation of an online platform on forests and climate change adaptation and mitigation under the auspices of “weADAPT”, a fast-growing climate adaptation community of nearly 2000 members and 300 organizations.
- Engagement in a project to enable smallholders to benefit from carbon finance. More than 5000 farming households in India have adopted adaptation measures such as planting trees, changing agricultural practices and reducing energy consumption.

Research theme



Impacts of trade and investment on forests and people

Objectives

- To contribute toward major shifts in trade and investment trends in forested landscapes, in order to reduce the negative impacts and enhance the positive impacts on forests and forest-dependent communities by creating opportunities for sustainable and inclusive development

Some of our research activities and achievements

- Examination of the implications of biofuel development for forests, which markedly improved understanding of how biofuel policies affect local socioeconomic and ecological outcomes.
- Identification of the challenges associated with the implementation of market regulations in consumer countries for supporting timber legality, such as FLEGT, and options to manage the impacts on the domestic timber sector and small/informal timber operators arising from their integration into the formal economy.
- Analysis of the policy and legal frameworks and corporate strategies shaping the expansion of large-scale investments across sectors that place pressures on forests (e.g. oil palm, timber, mining), and recommendation to improve finance and land governance.

Success Stories

Rural Resource Centers: A program innovation in seed and seedling delivery

Impact study on efforts to spread the planting of high-value trees using new propagation methods, Cameroon

- More villagers learned about agroforestry options, thus gaining ways to diversify their livelihoods. The number of people planting high-value trees – and thereby increasing their incomes – more than doubled.

Farmer-managed natural regeneration: More trees = more income

Impact study on farmers undertaking natural regeneration of trees on their land; Burkina Faso, Mali, Niger and Senegal

- Overall, trees were found to increase crop yield by 15–30%, depending on location, species and crop type. Households practicing farmer-managed natural regeneration more intensively had higher incomes than those who did less – and the greater the tree density, the higher the incomes.

Climate change mitigation: Overcoming technical hurdles and shaping international policy

A stepwise approach to setting reference emission levels for REDD+, thus overcoming a major technical hurdle for countries in setting performance baselines

- After results were presented to policy makers at an expert workshop, the UNFCCC adopted the approach as its reference emission level framework. The approach has since been extended to the entire measuring, reporting and verification system.

Cross-Cutting

Gender: Redressing the imbalance

Gender research is embedded in each core research theme, with guidance and training by gender specialists. The gender cross-cutting theme provides the support processes and structures needed to improve the quality and volume of gender-responsive research in CRP-FTA, providing a road map for scientists, their managers and partners and a more systematic approach to designing and implementing gender-responsive research.

Some examples of how gender analysis and research is integrated into CRP-FTA:

- Building capacity for the collection of sex-disaggregated data and gender analysis through in-house and/or external training programs; design of methodologies; provision of materials such as gender manuals and conceptual frameworks.
- Identification and building of partnerships and alliances to enhance gender inclusiveness.
- Knowledge sharing for gender-responsive policy and practice, such as dissemination workshops and syntheses of key thematic gender issues.





Cross-Cutting

Sentinel landscapes: Local realities, global relevance

Landscapes in different parts of the world that serve as a common observation ground. They are tracked in concert and over time, thus generating reliable, long-term, comparative biophysical and socioeconomic data. Sentinel landscapes make it possible to cut across traditional disciplinary boundaries and to detect long-term trends.

Primary regional sites have been selected in Nicaragua/Honduras, Western Amazon, Borneo/Sumatra, the Mekong area, and West and Central Africa. Secondary sites are in South and Central Asia and the Miombo and Afro-montane eco-regions.

Looking ahead

Research for the future

Understanding long-term trends is essential for making well-informed decisions to shape the future. The four CGIAR centers are committed to continuing research under CRP-FTA for at least a decade, with the scale depending on funding.

Returns on the resources invested are already being seen, and evidence from impact assessments has reinforced the validity and utility of the approaches being applied.

Based on the sound research design and renowned international expertise at hand, and with sufficient and stable funding, we are confident that the CGIAR Research Program on Forests, Trees and Agroforestry will have a real impact on the planet and its people.

cifor.org/forests-trees-agroforestry

Photos by Aulia Erlangga, Dita Alangkara, Kate Evans, Neil Palmer, Ollivier Girard and Tomas Munita



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This research was carried out by CIFOR as part of the CGIAR Research Program on Forests, Trees and Agroforestry (CRP-FTA). This collaborative program aims to enhance the management and use of forests, agroforestry and tree genetic resources across the landscape from forests to farms. CIFOR leads the program in partnership with Bioversity International, CIRAD, the International Center for Tropical Agriculture and the World Agroforestry Centre.