



CIFOR Research Priorities

2013-2014

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Photo by Nanang Sujana/CIFOR
CIFOR's scientist in the field. Central Kalimantan. Indonesia

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Abbreviations

CATIE	Tropical Agricultural Research and Higher Education Center
CCAFS	CGIAR Research Program on Climate Change, Agriculture and Food Security
CCFP	China's Conversion of Cropland to Forest Program
CIAT	International Center for Tropical Agriculture
CIFOR	Center for International Forestry Research
CIRAD	Agricultural Research for Development
COBAM	Climate Change and Forests in the Congo Basin: Synergies between adaptation and mitigation
COP	Conference of the Parties
CRP-FTA	CGIAR Research Program on Forests, Trees and Agroforestry
DRC	Democratic Republic of Congo
EBF	evidence-based forestry
EUTR	European Union Timber Regulation
FDCs	forest-dependent communities
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GCS-REDD+	Global Comparative Study on REDD+
GHG	greenhouse gas
ICRAF	World Agroforestry Centre
IUFRO	International Union of Forest Research Organizations
MRV	measuring, reporting and verification
PES	payment for ecosystem services
REDD	reducing emissions from deforestation and forest degradation
SDGs	sustainable development goals
SFM	sustainable forest management
SLANT	Asian Sloping Network project
SWAMP	Sustainable Wetlands Adaptation and Mitigation Program
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change



The scientists are working on a study examining the impact of selective logging on Brazil nut production

Photo by Marco Simola/CIFOR

1 Foreword

Since its establishment in 1993, the Center for International Forestry Research (CIFOR) has grown in size and in scope. The Center's 20th anniversary has provided an opportunity to look back on its work — and to begin charting its course for the future. Setting priorities for future research that align with CIFOR's vision of forests remaining high on the world's political agenda, and people recognizing the real value of forests for maintaining livelihoods and ecosystem services, will become ever more important as CIFOR seeks to strengthen its position as the most relevant source of knowledge on forest landscapes. This document, intended for donors, partners and staff, will serve as a 'road map' of CIFOR's research priorities now, in the near future, and on the horizon. It will be produced yearly with inputs from CIFOR's Annual Meeting.

CIFOR's current research comprises a wide range of topics addressing forestry issues as they relate to the environment, livelihoods and governance. CIFOR leads the CGIAR Research Program on Forests, Trees and Agroforestry (CRP-FTA), which seeks to enhance the management and use of forests, agroforestry and tree genetic resources, and is also involved in the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). A gender focus is embedded throughout CIFOR's research to inform policies that reflect differences in men's and women's knowledge and roles in forest landscapes.

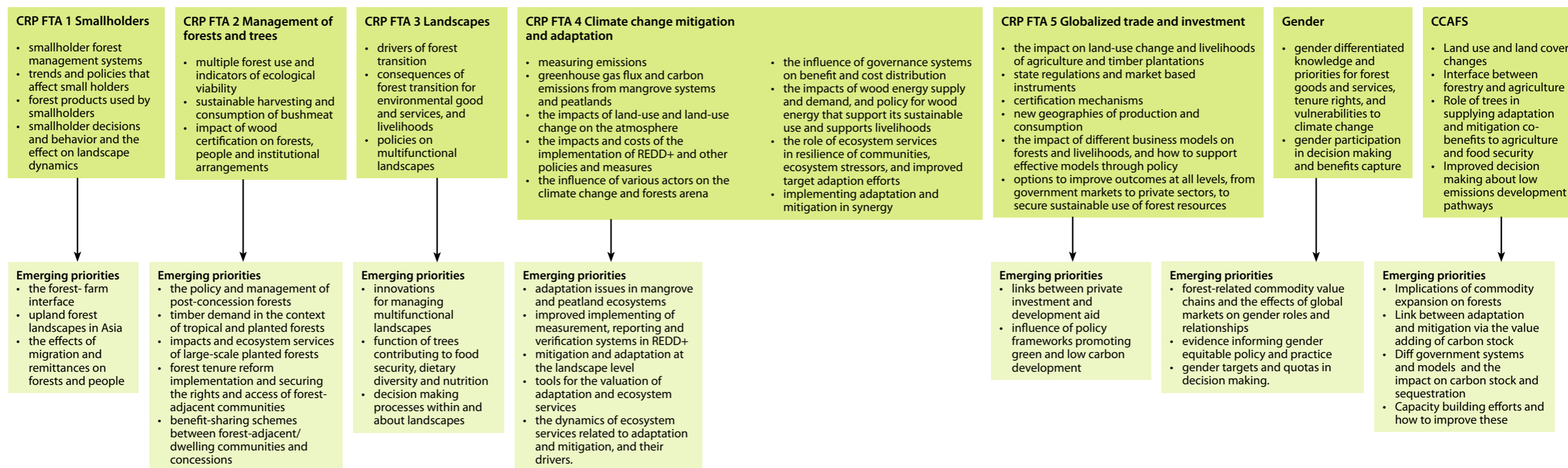
CIFOR's research portfolio therefore encompasses the people who live in forests and the products derived from them, as well as the policies and processes that affect the entire landscape. Much current research is dedicated to forests' role in

addressing climate change — from mitigation to adaptation; as a source of food — from Brazil nuts to bushmeat; as a source of income — from charcoal to furniture; and the broad array of other ecosystem services provided by forests including carbon sequestration, water filtration and flow control, pollination, nutrient cycling and much more. CIFOR also looks beyond the forests to understand markets and other exogenous factors including finance, agricultural development, indigenous interests, law enforcement, timber certification systems and land-rights policy. Through landscape, multi-level governance and ecosystem approaches, CIFOR seeks combined solutions to sometimes conflicting goals of poverty alleviation, food security, forest conservation, and climate change mitigation and adaptation.

Emerging research sees CIFOR expanding geographically and thematically, examining how migration and remittances affect forests, and how forests provide ecosystem services to the farms on which an increasingly urban world will rely. Many of CIFOR's projects, including its REDD+ research, are expanding to include a broader perspective — a landscape approach — and our research will increasingly contribute to and apply the methods of the Evidence-Based Forestry (EBF) Initiative, which aims to increase the strength of the evidence-base that informs policy and ensure that research is of demonstrably high impact. While advancing these initiatives, CIFOR looks to expand activities in various regions and countries including China, the Democratic Republic of Congo, Ethiopia, India, Mexico, Mozambique, Myanmar, Peru, Tanzania and Zambia in the coming years.

2 Research priorities summary

Current projects and priorities



Emerging priorities across CIFOR

Evidence based forestry

Aims to increase the strength of the evidence-base that informs policy and to ensure that research is of demonstrably high impact.

Landscape approach

A holistic approach that, when determining recommendations for a geographic area, considers multiple stakeholders and their multiple objectives.

Forests, food, and nutrition

Research that investigates broader perspectives on and cross-site comparisons of the contribution of forests and tree-based agricultural systems to food security, livelihoods, healthy diets and nutrition.

Migration and urbanization

How do rural to urban shifts affect tropical forests? This research will investigate migration, urbanization, and remittances and their effects on forests and forest-dependent communities.

On the horizon

Financing sustainable landscapes

Researching how to overcome the challenges of finance and governance in making long-term investments in sustainable production of agriculture and forestry in sub-Saharan Africa.

The green economy

Investigating the green economy goals of sustainable development and poverty reduction, both of which call for a correction of mainstream thinking and a change in the over-degrading of natural capital.

Corporate governance

Improving our understanding of the motivations and activities of the private sector as well as emerging corporate governance mechanisms and their impact on forests and FDCs.



The scientist Reading maps of the concession, Peru
Photo by Marco Simola/CIFOR

3 Current research themes and priorities

CIFOR's current research is conducted within the framework of two CGIAR Research Programs: Forests, Trees and Agroforestry; and Climate Change, Agriculture and Food Security. This section presents our current research in those contexts.

3.1 CGIAR Research Program on Forests, Trees and Agroforestry

The CGIAR Research Program on Forests, Trees and Agroforestry: Livelihoods, Landscapes and Governance (CRP-FTA) responds to a call for an urgent, strong and sustained effort focused on forest management and governance, given the crucial role of forests in confronting some of the most important challenges of our time: climate change, poverty, and food security.

CIFOR leads the program in partnership with Bioversity International, Tropical Agricultural Research and Higher Education Center (CATIE), Agricultural Research for Development (CIRAD), the International Center for Tropical Agriculture (CIAT) and the World Agroforestry Centre (ICRAF). The centers collaborate with leading national research institutes and other

organizations. They partner with knowledge-sharing experts to maximize outreach and share research results with policy and practitioner partners, who can use and share this knowledge on the ground in the developing world.

3.1.1 CRP-FTA Theme 1 – Smallholder production systems

Throughout the tropics, forest landscapes that are occupied, controlled, and used by smallholders and community groups are complex mosaics. In many parts of the world, these stakeholders have been key agents in maintaining and modifying forest cover, while their forest management practices are important components of local livelihoods and contribute significantly to national economies. These actors have developed highly diverse forest management systems that have adapted over generations and reflect complex and changing biophysical and socio-economic conditions found at the forest–farm interface. Research in this theme aims to support smallholder and community foresters by increasing understanding of the role and diversity of their management systems, strengthening resource governance, enhancing rural livelihoods, improving human well-being, and contributing to sustainable forest use and conservation.

Priorities

- Analyzing how smallholders and communities manage forests, how they organize to govern resource access and use, and what types of products and services they rely upon
- Examining the frameworks, policies and trends that shape smallholders' behavior
- Identifying how forests, forest landscapes and the people living there are affected by these trends.

The forest products used by smallholders and communities are often poorly understood or underappreciated even though they play crucial roles in supporting local livelihoods. The management of fast growing pioneer timber species through farmer supported natural regeneration is an approach highly adapted to smallholder production systems, where complex mosaics mix agricultural land uses, swidden fallows and remnant forests. For example, in Peru smallholder producers have found market niches that allow them to generate significant income from species like bolaina (*Guazuma crinita*). In Cameroon, CIFOR research that focuses on non-timber forest products has addressed food security issues by studying the management of species threatened by increased commercial extraction (e.g. 'Maratacea' leaves used by women in the processing of cassava and bush mango). Research into the role of smallholders' fuelwood production chains in locations ranging from Cameroon, Zambia and Ethiopia to Peru have shown the strong links between rural fuelwood production and urban markets. Food and fuel interact in complex ways. The types, quantities and quality of fuels available to households likely influences household cooking practices, while at the same time urbanization, a growing middle class, and changing food demand has implications for fuel demand.

Theme 1 research is also examining landscape dynamics driven by smallholder and community management decisions and behavior. Monitoring of afforestation efforts under the China Cropland Conversion Project is a CIFOR research initiative evaluating the environmental and socioeconomic impacts of China's Conversion of Cropland to Forest Program (CCFP). This project, a research partnership with China's State Forestry Administration, is attempting to track the CCFP's efforts to convert hilly agricultural cropland to forest to meet conservation goals. The CCFP is the world's largest afforestation-based payment for

ecosystem services (PES) scheme involving more than 32 million households with more than 20 million ha of sloping land already converted.

Emerging priorities

- Research on the integration of forestry and agriculture in smallholder production, otherwise known as management of the forest-farm interface, is examining the complex spatial and temporal diversity inherent in these systems that support substantial portions of rural populations in the tropics. While this type of management often characterizes smallholder landscapes, the role of these systems is often underappreciated and the contribution of products and services from these forests to local livelihoods and regional economies is often unrecognized. More importantly, little is understood about the effects of policies, such as forest tenure frameworks, and forestry that are poorly adapted to the conditions of smallholders.
- The Asian Sloping Land Network (SLANT) project builds on the China Cropland Conversion project by examining other locations in Asia that have important upland forest landscapes managed by smallholders. In collaboration with ICRAF, CIFOR is initiating research to evaluate the current state of smallholder management of forests and trees on sloping lands throughout Asia, measure the contribution of these lands to environmental services, and examine national and local policies that influence and frame farmer behavior. The project also intends to develop a regional network for south-south information exchange to share experiences and lessons learned.
- Examining the effects of migration and remittances on tropical forests and forest-dependent communities (FDCs). Migration in the tropics, as in much of the world today, appears to be far more complex than national censuses and general overviews suggest and is emerging as a major factor that determines land use and land-use change. This initiative will analyze the impacts of rural-urban migration, urban growth and remittances on forest environments.

3.1.2 CRP-FTA Theme 2 – Management of forests and trees

Sustainable forest management in a productive context has the potential to conserve natural forests

in multi-functional landscapes while playing a major role in providing goods and services. In addition, planted forests are becoming more important for both land restoration and wood production as timber supplies from natural forests dwindle. Yet the practical application of multiple uses remains complex and challenging at the forest stand scale—perhaps with the exception of high yielding, economically valuable, co-existing forest products. At broader scales, lack of cross-sectorial integration hampers multi-functionality and access to forest resources by local communities, the role of logged-over forests in terms of source of goods, services and conservation of biodiversity is largely overlooked leading to conversion to other uses.

Priorities

- Promoting multiple forest use in Western Amazonia through two coexisting, economically important forest products: timber and the Brazil nut. We are investigating, at the landscape level, resource extraction thresholds on selective timber removal on Brazil nut fruit production to generate management guidelines for ensuring long-term productivity through multiple use. With the recognition that livelihood diversification is critical for local forest managers, we submit that the governments' acknowledgment of our research efforts could pave the way for the development of multiple-use management scenarios and indicators of ecological viability.
- A comparative study on the sustainable harvesting and consumption of bushmeat is currently developing indicators for the national and regional monitoring systems of the countries that hold the Amazon, Mekong and Congo basins. Developing countries, particularly from tropical regions, are looking for alternatives to promote sustainable harvesting, consumption and marketing of bushmeat as part of their food and income security plans.
- Field-based evaluations on the environmental, social, economic and policy impacts of the Forest Stewardship Council (FSC) certification of natural forest management in Southeast Asia, the Amazon Basin and the Congo Basin. The aim is to assess how FSC certification has affected forest values, people and institutional arrangements and to provide recommendations on how to improve and roll-out our evaluation approach to other countries with timber plantations.

Emerging priorities

- Making visible 'post-concession' forests: Developing policy and management options for enhancing their conservation value. As more land from tropical forest concessions in many countries reverts back to the state, there is an urgent need to take into account this new land cover class and address what role these areas will play in the near future before they are gazetted to agroindustrial development due to their 'degraded' condition. We will undertake research in Peru where millions of hectares of overlogged forests are currently under threat of conversion. This proposed study aims to give local populations, regional officials, and other stakeholders guidance and recommendations on the potential role these extensive forested areas can have if managed properly.
- Finding effective strategies for reducing unsustainable demand of tropical timber as pressure on natural forest timber is likely to remain while planted forests meet the full timber demand. Along these lines, how do we bridge the waste of industrial harvesting with the needs of national regional markets?
- Assessing the social and environmental impacts of large-scale planted forests. Existing research on the social and environmental effects of forest plantation expansion lacks proper evidence to test arguments from 'conventional wisdoms' about most of the claims—both positive and negative ones—that planted forests exert on people (i.e. reduce poverty/increase poverty) and the environment (i.e. reduce deforestation and degradation on natural forests). Much of the existing evidence is based on either non-systematic observations or else comprised of static analyses without considering changes over time.
- We want to know how much is credibly known about quantifying the contribution of planted forests for production and restoration purposes in terms of delivering key ecosystem services at the local level. A recent global review on mapping of ecosystem service supply revealed that the most commonly mapped services are carbon storage and carbon sequestration and carried out at large scales although it is at the local scale where most of the benefits are to be received.
- How forest tenure reform implementation in developing countries can be more effective at securing the rights and access of forest-adjacent communities (in particular women)

to the forest and tree resources upon which they depend, and how to better align reform implementation with on-the-ground practices, including customary systems and institutions for forest resource allocation and control.

- Finally, we want to investigate conditions under which equitable benefit-sharing schemes between forest-adjacent/dwelling communities and concessions are likely to emerge and be sustained.

3.1.3 CRP-FTA Theme 3 – Landscapes

Integrated landscape and ecosystem approaches provide the best prospects for reconciling the often-conflicting goals of poverty alleviation and forest conservation. Conservation efforts need to optimize the management of protected areas and recognize the interests of local people. In addition, advances in the management of production forests are needed to better conserve biodiversity and more sustainably harvest timber in ways that also benefit the poor. These efforts need to be supported by further research (a key role for CRP-FTA), improved governance, policy change, capacity building and market incentives.

However, much of the world's biodiversity occurs outside protected areas in fragmented landscape mosaics. In developing countries, the nonmarketable values present in these mosaics are frequently accorded little priority while the sustainable productive potentials of different land areas are often underestimated during land-use planning. The result is suboptimal outcomes, including excessive loss of environmental value and biodiversity, and reduced agricultural and forest productivity. Optimizing sustainable use and conservation requires explicit management of the inherent trade-offs between the two through effective land-use allocation practices. Other approaches include clarifying access and management rights and responsibilities over land and natural resources, and innovative rewards and incentive mechanisms such as PES.

Priorities

- Understanding drivers of forest transition as a prerequisite for their management
- Understanding the consequences of the forest transition for environmental goods and services, and livelihoods

- Enhancing response and policy options to sustain and maximize environmental and social benefits from multifunctional landscapes.

Emerging research will explore the specific function of forests, trees and agroforestry at the landscape level in contributing to food security, dietary diversity and nutrition (provisioning services). Complementing analysis and technology development at the farm level in Theme 1, the landscape, food security and nutrition focus uses the various stages of forest/tree cover transition as its starting point for understanding the consequences of achieving food security through quantity (calories) and quality (dietary diversity and adequate nutrition), as well as possible interventions.

Emerging priorities

- Understanding the drivers of land-use change
- Quantification of the livelihood and environmental consequences of land use and its change
- Policy options to sustain and maximize environmental and social benefits from multifunctional landscapes
- Institutional innovations for managing multifunctional landscapes
- Strengthening learning processes to enhance negotiated decision making in landscapes

These outputs help support decision-making processes within and about landscapes to recognize the benefits derived from trees and natural resources at a landscape level, including food and nutritional security. Immediate outcomes could include: improved decision making processes that are evidence based and inclusive, and are supported by research and development organizations who embrace learning approaches in interacting with communities; local land managers and policy makers are trained in the use of tools and data to help make decisions on landscape management; local decision making is more empowered, using inclusive, negotiated and evidence-based processes; increased adoption of institutional innovations that strengthen the management of multifunctional landscapes; and improved policies for recognizing multiple benefits from agricultural and forest landscapes. These, in turn, lead to better coordination in the management of landscapes with reduced conflict and subsequently contribute to the CRP-FTA intermediate development outcomes.

3.1.4 CRP-FTA Theme 4 – Climate change mitigation and adaptation

The Climate Research Theme continues working on the interrelated issues of climate change mitigation (carbon sequestration/emissions in forests) and adaptation to climate change, as well as synergies and trade-offs between them. CIFOR's GCS-REDD+, probably the world's most comprehensive study undertaken on REDD, has moved into its second phase. A qualitative comparative meta-analysis of REDD+ governance in twelve countries has shown that only those countries already on a pathway of institutional change could establish REDD+ policies in a relatively short period. However, other factors such as high pressure from forest-resource shortages or effective forest legislation and policy were also important, and even in countries with enabling institutional settings, national ownership and the presence of 'transformational coalitions' in the national policy arena were crucial (Korhonen-Kurki et al. 2013). These governance studies are being expanded to include two more countries (Ethiopia; Mexico in 2014).

Priorities

Mitigation

- Understanding the influence of international actors, coalitions and providing an analysis of emerging modes of governance in the climate change and forests super-arena, for example how REDD+ has been adopted/coopted/corrupted by non-UNFCCC policy arenas, and how this affects effective REDD+ policy making in national policy arenas. We also prioritize work on the political economy of deforestation and forest degradation in REDD+ countries and the linkages to global market drivers to understand how these influence national and subnational decision making.
- Addressing the driver specificity (the M in measuring, reporting and verification) of MRV systems by exploring new technological advances (the use of ground Lidar for biomass assessments, and the remote sensing of soil carbon) to develop cost-effective, simple, accurate and reliable systems for the establishment of reference levels and assessing emissions reductions. Feasibility of participatory MRV for Carbon is being compared between 3 sites in Indonesia, in a pilot research linking a social (the M of MRV), multilevel governance

(R of MRV) and remote sensing (V or MRV) studies.

- Longitudinal research is being conducted in six countries at 22 subnational project sites to measure the impact of REDD+ interventions with respect to carbon effectiveness, cost efficiency, distributional equity, and the ability to produce a range of co-benefits including livelihood enhancement and tenure protection.
- Research on benefit sharing will continue to focus on assessing the costs of implementing forestry and REDD+ policies and measures, and the costs of establishing REDD+ projects on the ground. How governance systems at multiple levels may influence on the levels and distribution of benefits, costs and risks is another topic of study.
- We are also expanding the knowledge of the impacts of land use and land-use change on the atmosphere through a literature review of those interactions in Miombo drylands in Southern Africa. This will help improve MRV systems, facilitate discussions over development vs. conservation tradeoffs and it will help countries set priorities for low carbon development.

Adaptation

- The Sustainable Wetlands Adaptation and Mitigation Program (SWAMP), an extensive, detailed assessment of C-stocks in relatively undisturbed mangrove ecosystems and of greenhouse gas (GHG) flux from natural and managed peatlands, will continue these studies to support models and scenario building. SWAMP will employ, among others, ground based Lidar (to develop biomass equations without disturbing the ecosystem), ground penetration radar (to measure peat depth) and rotating surface elevation table (to measure accretion and subsidence). SWAMP is also maintaining a growing network of mangrove and peatland researchers across the globe through which it provides capacity building. New areas for SWAMP will be to explore adaptation issues in Mangrove and peatland ecosystems.
- The Congo Basin Adaptation and Mitigation (COBAM) project is working across conservation landscapes within five countries in the Congo basin on the challenges and opportunities in implementing adaptation and mitigation in synergy, while providing co-benefits for biodiversity. The project has

identified areas for further research where sectoral interests in multifunctional landscapes related to food security, carbon conservation, biodiversity conservation and adaptation of local communities needs to be addressed. And landscapes in the Congo Basin region are areas of concern. In its next phase, COBAM will be using the action research approach to identify possible adaptation and mitigation synergies and trade-offs.

- A review of wood energy that follows the Evidence-Based Forestry (EBF) Initiative guidelines is underway that tries to understand priorities for wood fuel national and international development strategies in sub-Saharan Africa. This work, to be finished mid-2014, looks at the socio-economic and environmental impacts of wood energy supply and demand, and tries to identify viable policy options for wood energy that could ensure an enabling environment for sustainable resource use and livelihoods in sub-Saharan Africa. This is a stocktaking exercise that will serve as the basis for a multi-stakeholder research effort on improving rural energy systems.
- Ongoing work on adaptation to climate change includes analyzing the role of ecosystem services in the resilience of local communities and the broader society to climate variability and change. These projects include analyses of how forests reduce vulnerability through supply of provisioning and regulatory ecosystem services, as well as studies of the impacts of different governance institutions in enhancing adaptive capacities of local communities.
- New work will focus on climate information as a new partnership is being built with climatologists at Columbia University to integrate knowledge of climate stressors operating at inter-annual to decadal time scales. That knowledge will ensure better target adaptation efforts in national adaptation plans of action (NAPAs) and in other sectoral development plans.

Synergies between Mitigation and Adaptation
CIFOR continues in its efforts to lay the groundwork for better understanding of synergies between mitigation and adaptation. This is seen as a crucial step towards greater efficiency and effectiveness of both mitigation and adaptation actions. This includes policy analysis (e.g. the

analysis of policy documents, networks, discourses and media) and the analysis of climate finance. Research gives increasing attention to comparative studies across continents.

Emerging priorities

New directions in research aimed at supporting countries implement better MRV systems in REDD+ include taking a more systematic look at these systems and understanding how different drivers of deforestation and forest degradation affect how emissions reductions need to be assessed. We will also look more systematically at how communities can be involved in national MRV systems through provision of activity data and through measurements of carbon stocks.

Climate-related research at CIFOR is currently being expanded into a landscape approach, exploring the synergies and trade-offs between mitigation and adaptation at the landscape level for carbon, biodiversity, food security and social outcomes of socio-ecological systems, through stakeholder-driven modeling and scenario-building, as a basis for green, high-carbon-storage development efforts going beyond REDD.

We will also closely watch and address novel developments by the UNFCCC COP to prepare the post 2020 climate agreement, such as the Framework for Various Approaches (FVA) - a framework for the many domestic mitigation actions emerging around the world. We will be keen on including these developments through our future work on landscape-based mitigation, as we have been flexibly reacting to novel developments in our GCS-REDD study.

While we have effective tools to assess mitigation services (i.e. carbon), there is a need for simple methods to assess adaptation services such as water and climate regulation, the protective role of ecosystems and their role as safety nets. Such tools can help in analyzing synergies and trade-offs between adaptation and mitigation. Furthermore, adaptation and mitigation are often addressed by separate institutions and policies, and governance and policy network analyses are required so that policies can be adjusted to contribute to the dual objectives more efficiently. This will be supported by developing an approach to ecosystem services valuation.

New work on adaptation-mitigation synergies will focus on the dynamics of ecosystem services related to adaptation and mitigation and their drivers. The research will analyze the trade-offs between ecosystem services in the past (for example increasing food provisioning services from agriculture and decreasing forest regulating services such as carbon and water regulation), their drivers and the implication for stakeholders at different levels. Scenarios will be developed based on global scenarios (e.g. climate and economy) and the perspective of local and national stakeholders. These scenarios will present contrasting views of possible futures and be used in back-casting exercises to identify what measures can help reach the most desirable futures and avoid the least desirable outcomes to support more informed land use and development planning.

3.1.5 CRP-FTA Theme 5 – Globalized trade and investment

Theme 5 research activities focus on assessing the processes through which globalized trade and investment influence forest landscapes, their different negative and positive impacts on forests and people's livelihoods, and the policy and social responses to promote more responsible investments. Our goal is to assess what impacts emerging economies and emerging market multinationals have on shaping landscape change. Expanding agricultural and timber plantations have differentiated impacts on land-use change and local people's livelihoods as well as broader social and economic multiplier effects. We also look at state regulations and market-based instruments, including roundtables and certification processes, in both consumer and producer countries, aimed at increasing the adoption of sustainable crops commodity production and legal timber supply.

Priorities

- Assessing the influence of certification mechanisms in improving land and forest resources use. We study what impacts the adoption of import regulations in consumer countries, particularly the European Union Timber Regulation (EUTR) and the derived Forest Law Enforcement, Governance and Trade (FLEGT) process, have on the livelihoods of smallholders, small-scale chainsaw operators and timber enterprises in forest-rich producer countries. Our research explores options to better integrate these local forest users in the dynamics of domestic markets under global processes of legal timber trade. A global comparative study is being undertaken in Cameroon, Gabon, DRC, Indonesia and Ecuador.
- Exploring the influence of new geographies of production and consumption on the use and conversion of both tropical and dry forests. As emerging economies, notably China, are investing in timber, mining and agriculture, they are shaping the trade dynamics in areas such as Southeast Asia, especially Laos and Indonesia, and in select countries in sub-Saharan Africa. We assess the impacts from the expansion of these commodities at a landscape level and analyze options that could lead to development pathways with less impact on the environment and improved social and economic outcomes. In addition, we will explore with more attention the links between private investment and development aid, and the influence of policy frameworks promoting green and low-carbon development in shaping the development of commodity production linked to globalized trade and investment.
- Assessing the geographies of investment associated with finance originating in emerging economies and the role it plays in the expansion of large-scale land-based investments, mainly in oil palm and timber plantations in Indonesia, Brazil and Mozambique. This research analyzes the impacts of different business models (e.g. outgrower schemes, contract farming, joint ventures) in forests and people's livelihoods, to determine what institutional arrangements in production, finance and marketing can deliver improved socio-economic and ecological outputs. We explore the best ways to support these institutional arrangements through regulations and incentive-inclusive business models.
- Formulating options at different levels and for various types of actors: for example, governments at national- and sub-national levels require stronger and more consistent regulations for managing investment impacts and trade-offs; the private sector needs strategies and business models that lead to improved social, economic and ecological outcomes from investments; consumer market regulations like FLEGT or multi-stakeholder initiatives like FSC or the Roundtable on Sustainable Palm Oil should lead more efficient global trade and investment

processes for securing a sustainable supply in forest-rich producer countries. We favor integrated approaches linking nature–society interactions in order to understand the process of landscape transformation driven by trade and investments, and its impacts, and adopt multi-scale governance perspectives to understand the obstacles and opportunities for change.

3.1.6 Gender: Priorities for research and action

Our gender research focuses on understanding gender-differentiated knowledge of and priorities for forest goods and services, tenure rights and vulnerabilities to climate change. We also focus on gendered participation in decision making and benefits capture, including ways and means to minimize gaps in participation in different policy arenas such as REDD+ policies and projects, forest use, management and governance and the value chains of forest-related commodities.

While our current research addresses critical aspects of men’s and women’s strategic longer-term interests, several priorities emerge from current global processes.

Priorities

- With growing interest in the impacts of global trade and investments in fostering green economies, an emerging priority is the deepening and extension of our current research on forest-related commodity value chains. This will improve our understanding of the effects of global markets on gender roles and relationships, control and use of incomes, as well as on forest condition and the governance arrangements that support sustainable use and management.
- A systematic understanding of how, why and when evidence informs the formulation of gender equitable policy and practice remains a crucial priority. This can lead to the development of innovative and effective ways of linking research to gender-responsive policies and actions at sub-national, national and international levels of aggregation.
- Many countries in Africa, Asia and Latin America have institutional arrangements to increase women’s representation in decision-making roles, such as targets and quotas. One argument in favor of such quotas has

been the notion of critical mass — a threshold percentage that when reached allows women decision makers to transform policy and practice. However, some suggest that ‘critical actors,’ women in decision-making positions who take on gender concerns and press for their implementation, are more important in policy delivery than just increasing numbers. Research in this topic will explore the extent to which these different approaches apply in forestry and related sectors in order to provide insights into the actions and interventions that may support, strengthen and sustain women’s leadership.

3.2 CGIAR Research Program on Climate Change, Agriculture and Food Security

CIFOR is increasing its participation in the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), in which land-use and land-cover changes will be studied in Indonesia, East Africa (Kenya and Tanzania), and West Africa (Burkina Faso and possibly Mali). Studies of the interface between forestry and agriculture will be conducted in a gradient of environmental and human population pressure to draw conclusions about the role of trees in supplying adaptation and mitigation co-benefits to agriculture and food security. This research will use a landscapes approach to estimate the aggregated value of environmental services to land users. The services of the trees and forests to agriculture will be assessed through water conservation and soil protection functions. Water flows, water quality, C stocks, C dynamics and GHG emissions will be compared with productivity and economics of the different land uses.

Priorities

Current priorities in CCAFS work are focused on providing information to support better decision making about low emissions development pathways. This includes research on:

- Tools for tradeoffs analysis of mitigation options at the landscape level to inform low emissions development plans
- Farm- and landscape-level trials of strategies to increase system productivity, soil quality and carbon sequestration in East Africa
- Assessment of carbon stocks and land quality improvement from farmer-assisted regeneration trials

- Studies of management effects on GHG emissions, especially nitrous oxide, in oil palm plantations in Indonesia, Peru and Cameroon
- Developing simple tools to assess mitigation and adaptation potential at the national level.

Emerging Priorities

- Assessing the implications of commodity expansion on forests, and exploring what institutional response can contribute most to sustainable commodity supply
- Exploring the linkage between adaptation and mitigation by investigating the value adding of carbon stock in different landscapes and under different local collective and individual practices, for enhancing livelihood strategies to cope with climate change
- Analyzing the impact of different governance systems and models on the carbon stock and sequestration at different land uses in decision making and policies at national level
- Assess institutional capacity to determine how capacity-building efforts can be made more effective, and test the methods for integrating community-based monitoring results in regional and national MRV systems



4 Emerging priorities

4.1 Evidence-based forestry

The Evidence-Based Forestry (EBF) Initiative is central to CIFOR’s purpose of conducting and communicating high-quality impact-oriented research to inform effective policy and decision-making. The Initiative speaks to increasing expectations both that policy should be evidence-based, and that research conducted by CIFOR and other CGIAR centers should be of demonstrably high impact (see cifor.org/ebf/background).

Processes for strengthening the evidence base at the science-policy interface are already well established in other sectors (Table 1). The EBF Initiative that CIFOR is leading is an important step towards a similar platform for forestry in its broadest sense. Evidence-based policy (in some circles, ‘evidence-informed policy’) draws on a range of sources and methods (see <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=64>), and sits at the intersection of scientific knowledge, expert opinion and societal needs (Figure 1). One of its foundations is a structured approach to reviewing and assessing existing knowledge, and drawing conclusions from that knowledge base that inform important questions in both policy and practice. ‘Systematic

reviews’ (Figure 2) are now established as the heart of such structured approaches to knowledge synthesis for an evidence-informed approach. Their value to policy makers depends not only on the quality of the review, but also on the relevance of



Figure 1. Evidence-based policy sits at the intersection of scientific knowledge, expert opinion and societal needs

Table 1. Evidence-based initiatives across various disciplines

Year	Initiative	Discipline
1987	Swedish Council on Technology Assessment in Health	Medicine
1988	Centre for the Study of Learning performance (Canada)	Education
1993	Cochrane Collaboration	Medicine
1993	EPPI Centre (UK)	Social policy
1994	Centre for Review & Dissemination (UK)	Medicine
1995	Joanna Briggs Institute (Australia)	Medicine
1995	Blueprints for Violence Prevention (USA)	Crime and justice
1999	Center for Evaluation Research and Methodology (USA)	Crime and justice
2000	Campbell Collaboration	Social policies
2003	Centre for Evidence-based Conservation	Environment
2007	Collaboration for Environmental Evidence	Environment
2009	3iE	International development
2013	Evidence-Based Forestry - CIFOR and partners	Forestry, broadly defined

Elements of a systematic review

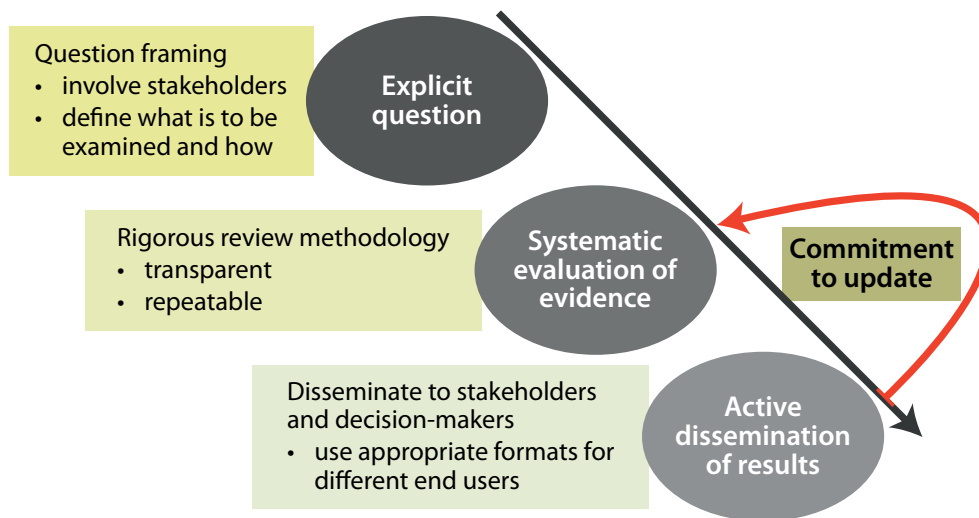


Figure 2. Elements of a systematic review (adapted from Petrokofsky et al. 2011).

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the review questions to key policy and practice issues. For this reason, processes for identifying and prioritizing the most important questions relevant to policy- and decision-makers are also an essential component of evidence-based approaches.

The EBF Initiative is built on a partnership between CIFOR and four other research organizations with complementary mandates in forestry internationally – CATIE, CIRAD, IUFRO and ICRAF. Together, these organizations’ work

spans a wide spectrum of research topics and geographies. Each is represented on the Initiative's Steering Committee, established to oversee and guide the initiative as it develops. The Initiative is supported by a partnership with the University of Oxford, to draw on its relevant expertise and outstanding forestry information resources, and by a small team based at CIFOR.

The EBF Initiative was launched in June 2013, in conjunction with the IUFRO Latin American Congress and the first meeting of the Steering Committee. Seven systematic review topics have already been associated with the Initiative, and more are in the pipeline. In 2014, the EBF Initiative will focus on conducting a global consultative process to identify the most important policy-relevant questions, and from them generate a set of systematic reviews relevant to these questions.

Embedding the rigorous approach to literature review within research projects is a challenge that CIFOR is working towards, in part by exploring 'systematic maps' as tools that can be undertaken relatively rapidly as precursors to full reviews or to scope information gaps within the literature. Read more about the EBF Initiative, keep up to date on developments, and engage with the Initiative by visiting www.cifor.org/ebf.

4.2 Landscape approach and the post-2015 agenda

Taking a landscape approach (Frost et al. 2006) implies that multiple stakeholders consider multiple objectives for their geographic area of interest to determine the best ways forward (Holmgren 2012). On one hand this is a perfectly normal situation in, say, the daily management of a farm or the general elections of a country. But on the other, we are instead experiencing sectorial silo approaches to policies and decision-making – the international arrangements on forests being a case in point – that constrain our options by considering only limited sets of stakeholders and objectives. Within these constraints, it is unlikely that the best ways forward are found and it is certain that we can't determine how good proposed solutions are in the bigger picture.

Sustainable development has been on the agenda for decades, with current emphasis on

negotiations towards a post-2015 development agenda and sustainable development goals (SDGs). The UN secretariat-led Open Working Group (sustainabledevelopment.un.org) is still at work, and there is a tendency for a continued silo approach in this sub-process. Another prominent path in the follow-up to Rio+20 has been the Secretary-General's High-Level Panel whose report (UN 2013) emphasizes the need for cross-cutting approaches and transformational change (Holmgren 2013). By using a landscape framework as a research platform CIFOR builds on the latter principles with a firm starting point that a landscape framework can and must integrate across land-based sectors (forestry, agriculture, livestock, mining, urban land use, etc.) in support of all SDGs for our common future.

The case for a landscape approach to ecology has been made for at least 25 years, but that for a landscape approach to sustainable development only much more recently (Sayer et al. 2013; Pfund 2010). Landscape-oriented research has been a feature of CIFOR's work since our establishment, and has grown significantly in emphasis over the past decade. The first Global Landscapes Forum to be held in conjunction with the UNFCCC COP in 2013 emphasizes the continued significance CIFOR gives to landscapes in framing our work. CIFOR's understanding of landscapes, reflected in the Global Landscapes Forum (landscapes.org), has long been an integrative and holistic one.

Our thinking about how to give effect to the goal of integration at a landscape scale is progressing: in recent work adopted by the Convention on Biological Diversity (CBD 2011), a group of researchers with many links to CIFOR proposed 10 principles central to implementing a landscape approach (Sayer et al. 2013). Complementary CIFOR research has been investigating how major capital flows might be leveraged to support sustainable land use at a landscape scale (Munden et al. 2012), how a landscape approach might work in practice (Kovacevic 2013), and how the CRP-FTA Sentinel Landscapes will serve as vehicles for co-located research. In the international debate, a generic set of landscape objectives and performance measures has been promoted by CIFOR over the past year to illustrate the need for an analytical framework and to stimulate debate (Figure 3).

In the coming year, CIFOR will develop a research platform around landscapes. We refer to

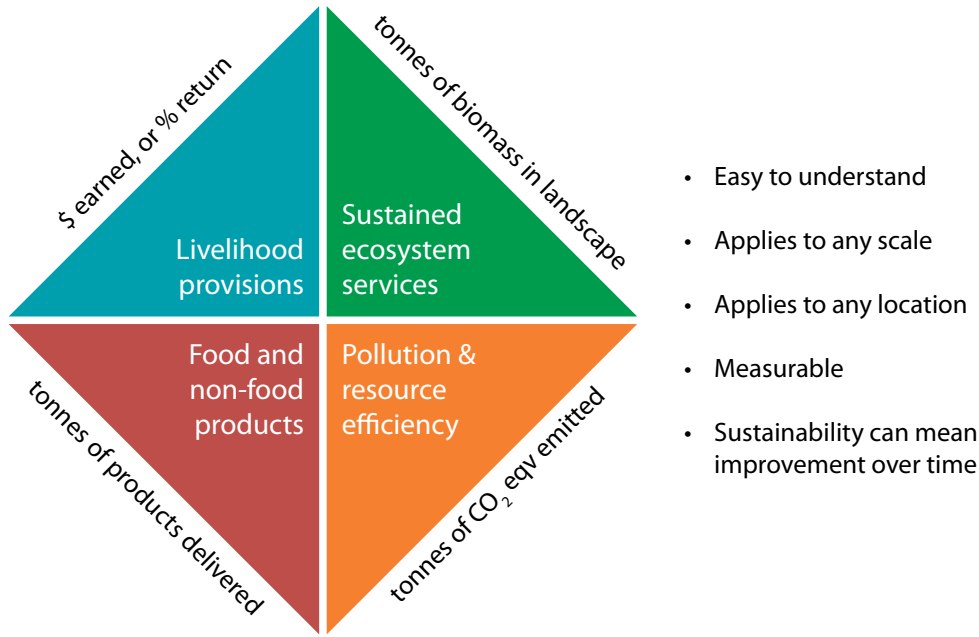


Figure 3. A proposed generic set of four objectives for sustainable landscapes and a possible performance measure for each.

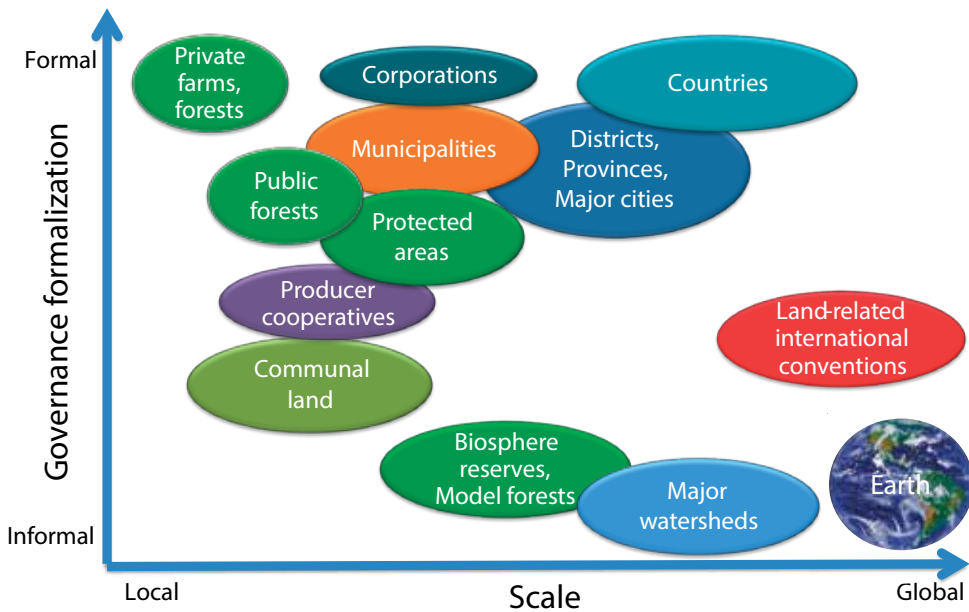


Figure 4. Examples of landscapes across ranges of scale and formalization. A landscape framework will be applicable to all of these.

a ‘landscape framework’ to illustrate the analytical and participatory processes that are necessary for finding multi-dimensional solutions for landscapes. Further, a landscape framework should address landscapes of a variety of scales, and different

degrees of formalization (Figure 4), and should aim to strengthen sectorial disciplines and institutions. As concluded above, the landscape framework should tie in with the emerging SDGs and provide means to monitor progress in this context.

Key research areas related to the landscape framework include:

- Nature-society interactions leading to changes in how land, forests, water and other natural resources are used, and their impacts for societies and economies at different scales
- Biophysical interactions and impacts across landscapes, especially between forests and agriculture lands and implications for productivity in forestry and agriculture
- Livelihood interactions and dependencies on landscapes, including effects of migration, economic growth as well as public and private finance
- The political and institutional systems and mechanisms shaping nature-society interactions with impacts on development and conservation trade-offs, and associated winners and losers
- Limitations and potentials of institutional arrangements and legal frameworks for landscape solutions
- Global comparisons of landscape initiatives, including their analytical approaches, decision processes and impact evaluations.
- Effects and potentials at landscape level of sector and cross-sectoral policies to advance SDGs
- Evaluate options for a generic landscape framework with objectives and measurable performance parameters that tie in with the SDGs
- Further development of the CRP-FTA Sentinel Landscapes to allow for long-term studies of the above.

4.3 Forests, food security and nutrition

Forests and tree-based agricultural systems contribute directly and indirectly to the livelihoods of an estimated one billion people globally. Wild foods are important for food security and nutrition while trees and forests are vital for their role in the provision of ecosystem services to agriculture. However, the role of forests in supporting human food security and nutrition remain largely under-researched and misunderstood. With food security and nutrition high on the agenda in many political and scientific spheres, it is crucial to understand the contribution of forests and trees to a food secure and nutrition-sensitive future. This improved understanding will be essential for building on synergies and minimizing trade-offs

between biodiversity conservation and sustainable agriculture in order to feed an estimated global population of nine billion people by 2050.

Although existing evidence is limited, a considerable body of work suggests that forests support both food security and contribute to improved nutrition across the globe. Wild fruits and vegetables are a crucial source of micronutrients in many rural and smallholder communities, and often provide a major contribution to cash income at the household level. Bushmeat and fuelwood for subsistence and income generation contribute both directly and indirectly to food security and nutrition in sub-Saharan Africa, Southeast Asia and Latin America. There is now an urgent need for research that can provide broader perspectives and cross-site comparisons of the contributions of forests and tree-based agricultural systems to food security, livelihoods, healthy diets and nutrition.

In addition, evidence is required on the contribution of forests-based ecosystems to ensure forests and biodiversity conservation remains on the agenda of policy makers and practitioners in conservation, agriculture and nutrition. The dearth of empirical descriptions and quantification of ecosystems services to agriculture limits its inclusion in initiatives related to, for example, the sustainable intensification of agriculture. In-depth studies could contribute to a better understanding of the trade-offs between land sharing and land sparing as strategies for future food production.

Forests, biodiversity conservation and agro-ecology should feature prominently in political and scientific discourse on agricultural production and the concomitant challenge of SFM. Greater attention to the direct and indirect benefits of forests in food security, livelihoods and nutrition should enhance local and global efforts to end hunger and improve the nutrition of communities living in forested areas as well as those living in areas removed from forests (see more in Sunderland et al. 2013).

4.4 Migration, urbanization and remittances

Rural-urban migration and the growth of urban areas have historically had important impacts on rural environments, including forests. With

the world's population having very recently become predominantly urban, and urban areas in many tropical areas growing at record levels, interest in how rural–urban shifts affect tropical forests is receiving considerable attention. The urbanization of tropical populations could lead to a halt in ongoing deforestation and to the eventual afforestation of substantial areas if emigration from the countryside were to drain rural zones of farmers and return their abandoned fields and pastures to forest.

However, researchers have shown that despite sizable urban growth and rapid rural-urban migration, rural areas in the humid tropics are rarely abandoned to re-grow into unmanaged and unused forests. In some cases, rural emigrants are replaced by new immigrant farmers, in others by industrial-scale agricultural enterprises fueled by growing regional urban and global markets; in either situation, few lands apart from the most remote and marginally arable return to forest. Other studies find that many emigrant families are engaged in circular rather than direct rural-to-urban movement and that many previously rural households maintain both urban and rural residences. This migration appears to be far more complex than national censuses and general overviews suggest.

Another area of considerable interest that has yet to be explored adequately is the relationship between urbanward or international migration, the sending of remittances to rural communities, and the effect of these patterns on forests. The widespread remittance of money from foreign workers to their home countries and households is among the most significant of global capital flows. The money sent home by migrants is about three times the size of official development assistance, estimated to have reached \$372 billion in 2011. This has become an important topic for scholars of immigration policy and transnational studies, but very little research has focused on the relationship of remittances to forests or other environmental issues.

CIFOR scientists and partners have begun research on these issues, assessing what is known about the importance of these flows for tropical forests and for the well-being of human communities dependent on the resources of these forests. We have brought together a group of prominent scholars with interested CIFOR scientists to identify what potentially important research gaps exist, and what the comparative advantages of CIFOR and other partners are in conducting further policy-relevant research in this area. Following a broad-ranging workshop several research groups have been formed to begin pilot projects while we seek further funding for a major research effort.



An aerial shows of forest and agricultural landscapes near Rio Branco, Acre, Brazil
Photo by Kate Evans/CIFOR

5 Prospective priorities

New directions and emerging research themes reflect CIFOR's new emphasis on a landscape approach and the growing complexities associated with processes of globalization, decentralization, and the commodification of nature.

5.1 Financing sustainable landscapes

The provision of agricultural credit in Africa is extremely low, particularly for vulnerable and marginalized groups, including women. This acts as a barrier to empowerment and inclusive development. Local governance conditions, which do not provide an enabling environment for private investment, are a key part of the problem in promoting sustainable land use as they contribute to heightened risk. Local financiers, including rural financial co-operatives, commercial banks and microfinance institutions find it hard to diversify risk, and are often forced to offer interest rates that are too high, resulting in unnecessarily high default rates. Meanwhile national and regional financiers, including larger commercial banks and agricultural development banks, have a greater capacity to mitigate their risk exposure, but they often lack insight into locally appropriate conditions. Additional challenges include:

- Low private investment and the growing financing gap in sustainable land management, particularly in Africa, due to the absence of a strong business case for these investments
- Low access to financing for smallholder farmers in Africa (in part because of falling national government investment in agriculture) especially among women
- Local governance conditions: Cooperatives must be strengthened to help create and enabling environment for private sector investment
- Ineffective credit delivery: small individual investment opportunities along with shortcomings in risk management have led to high interest rates, short maturities and inflexible payment schedules which serve to exacerbate risk and reduce the recovery rate
- Lack of access to technologies and services for employing low-emissions agricultural practices in agriculture and forested landscapes
- Lack of knowledge and capacity across sectors, including researchers, policymakers and development practitioners, financial institutions, civil society organizations and extension service providers

Important and long-term investments in sustainable production of agriculture and forestry, certified using credible sustainability standards, are crucial in fostering the transition to a low-carbon and more inclusive and equitable development in sub-Saharan Africa.

CIFOR is working with partners to develop an innovative approach – INARI – which aims to research and overcome these financing and governance challenges, which, if left unfilled, will prevent smallholder farmers playing a full role in promoting shifts to sustainable land and resource use. This initiative is led by CIFOR, in collaboration with the Munden Project, Ateneo School of Government in the Philippines, Chatham House and ICRAF.

This initiative aims to address the following:

- An assessment of investment trends and the geographic shift from north-south to south-south capital flows (notably Brazil, Russia, China and India) to improve our knowledge of the different ways of doing business.
- A review of past experiences to promote lending to smallholders through banks, micro-credit institutions, informal credit lines, cooperatives and farmer associations and, the use of market-based policy instruments.
- A review of orthodox forestry investments to determine why many of them have either failed or under-performed, and try to identify successful business models.
- A critical re-appraisal of the key problems that will affect the roll-out of INARI, notably with regard to property rights and the costs of doing business (e.g. red tape and corruption associated with registration, issuing licenses, formal taxation), and research to understand if measures such as ‘One Stop Investment Windows’ have either reduced or exacerbated the range of governance challenges.
- A critical review of the proliferation of, and relationships between, different transnational certification and validation systems associated with agricultural and forest products (and services including carbon standards), and the technical and financial barriers of entry particularly for smallholders.
- The design, development and testing of the proposed INARI securitization system, which aims to provide credit at longer maturities, lower interest rates and more flexible repayment terms.

- The design, development and testing of a governance system to deliver finance based on the recruitment of Performance Assessors to ensure the credibility and accountability of INARI in selected test regions and countries.

5.2 The green economy

The role of the green economy in sustainable development and poverty eradication was one of the two foci of the 2012 Rio+20 UN Conference on Sustainable Development (Kettunen and ten Brink 2012). Prior to Rio+20, UNEP commissioned a body of work on the green economy, which was summarized in a suite of 2011 reports (UNEP 2011). The basic premise of this work is, as with two decades earlier, that the current economic system misallocates resources by over-degrading natural capital, and the green economy goals of sustainable development and poverty reduction call for a correction of mainstream thinking.

There was no substantive agreement about or commitment to the green economy principles and agenda at Rio+20. However, the profile given green economy issues prior to and at Rio+20 helped catalyze discussion of ‘green growth with equity’ as an element of the post-2015 SDGs (Holmgren 2013), and forestry is one of the ten sectors identified by UNEP as foundational in a green economy.

UNEP identifies four key action points (UNEP 2011): 1) knowledge generation, synthesis and communication; 2) building a shared vision for forests through dialogue; 3) enabling conditions in terms of policy settings for conserving, managing and using forests sustainably; and 4) mobilizing increased public and private investments in forests.

CIFOR’s research agenda already engages with many elements that are conducive to a ‘green growth with equity’ agenda, including but not limited to the four above identified by UNEP. Our research aims to achieve the following:

- understanding and improving the livelihoods of the poor who depend on forest products and services, and their associated value chains
- analysis of the ‘greenness’ of current and improved land management by assessing its environmental impacts on surface waters, the

atmosphere, biodiversity, and pumping of water to supply rainfall

- exploration of the impacts on landscapes, including investments in sustainable landscapes (CBD 2011) and on investments that transform landscapes (CIFOR 2011)
- review extensive past work on extra-sectoral impacts on forests and people, including on deforestation and land-use change
- the design and implementation of various forms of PES mechanisms
- analyze multi-level governance of globalized trade and investments to identify explicit forest sector tradeoffs with the agricultural and energy sectors at the landscape and national levels
- explore and promote options to transition towards more sustainable commodity supply (e.g. oil palm, beef, rubber) with forest-related implications by adopting greener production standards
- contribute to expanding greener activities with improved positive impacts on forests as well as social and economic benefits, mainly those related to biomass and green energy supply
- explore the influence that policy innovations may have at different levels of government in promoting the adoption of incentive systems for the transition to green and low-carbon development

One of CIFOR's strengths in relation to 'green growth with equity' is our traditionally holistic and interdisciplinary approach (in terms of production versus conservation functions of forests, in terms of extractive products versus ecosystem services, and in terms of a landscape approach). Conversely, CIFOR has little experience in economy-wide analyses – a defining feature of the green economy approach. Much of this green economy work is advocacy-oriented, challenging CIFOR to find a strategic and feasible research- and evidence-based approach to these issues.

5.3 Corporate governance

Corporate actors are increasingly investing in the production of tropical commodities such as oil palm, soy, timber and bioenergy feedstocks. This often drives deforestation in different parts of the world. These actors are under increasing pressure from advocacy groups and consumers to guarantee that voluntary sustainability standards are actually

safeguarding the interests of local communities and the environment. The corporate world now forms an influential part of the multi-scale governance processes and systems, acting in both producer and consumer countries. Retailers, consumer goods manufacturers, financiers, traders and producers are responding to this in a variety of ways including multi-stakeholder initiatives (e.g. Business for the Environment), market mechanisms (e.g. certification schemes and REDD+), and through direct investment in sustainable development projects

A new corporate governance initiative, focused on the oil palm industry to start, will explore the role of corporate governance by engaging with key decision makers in the private sector. This will improve our understanding of the motivations and activities of the private sector as well as emerging corporate governance mechanisms and their impact on forests and FDCs. This will be achieved by forming selective collaborative partnerships, by ensuring our research results reach a corporate audience, and by developing research projects with corporate governance themes.

This initiative will achieve the following:

- Identify key corporate actors/influencers and private sector initiatives in regions of oil palm expansion (Latin America, Africa and Southeast Asia) by visiting those regions, holding meetings and interviews with local private and public sector stakeholders, and desktop study.
- Select, approach and build strategic corporate partnerships at key stages of the palm oil supply chain that will feed into our research, provide access to research sites and potential co-funding as well as encourage uptake of research findings by identifying current research that would benefit from collaboration and targeting specific companies/champions that have expressed an interest in participating and present a window of opportunity.
- Develop and implement existing corporate engagement and due diligence procedure. Work with senior management to cement corporate engagement strategy.

This initiative will also contribute to developing a "corporate communications" strategy including:

- Working with CIFOR's communications team to communicate with the private sector through a variety of different media. This could include

the development of 4-8 page corporate briefs that communicate our past/present work on key topics to managers and practitioners in the palm oil supply chain and by presenting at workshops and conferences that target the private sector.

- Looking at the work of organizations such as Australia's Commonwealth Scientific and Industrial Research Organisation or the UK Agriculture and Horticulture development board and how they deliver their work to practitioners and influence change. This could involve meetings or discussions with similar research organizations who have worked with the private sector.
- Approaching corporate communications as a research topic and exploring the impact of green washing and the reporting of credible information, both on the part of the NGOs

and private sector companies. What impact is this having on consumers/buyers/demand? What changes will we see in the demand for transparency/reporting on sustainability in the coming years? What impact will new satellite mapping software have?

Potential further themes and topics to be addressed include:

- The interaction between private and public governance in countries where oil palm is expanding.
- The increasing influence and investment of downstream actors in upstream production processes.
- The influence of consumer behavior in shaping corporate social responsibility and corporate governance (advocacy, media, price and product differentiation) and the role of the retailer.

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Since its establishment in 1993, the Center for International Forestry Research (CIFOR) has grown in size and in scope. The Center's 20th anniversary has provided an opportunity to look back on its work — and to begin charting its course for the future. Setting priorities for future research that align with CIFOR's vision of forests remaining high on the world's political agenda, and people recognizing the real value of forests for maintaining livelihoods and ecosystems services, will become ever more important as CIFOR seeks to strengthen its position as the most relevant source of knowledge on forest landscapes. This document, intended for donors, partners and staff, will serve as a 'road map' of CIFOR's research priorities now, in the near future, and on the horizon. It will be produced yearly with inputs from CIFOR's Annual Meeting.



RESEARCH
PROGRAM ON
Forests, Trees and
Agroforestry

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 CRP-FTA in partnership with Bioversity International, CATIE, CIRAD, the International Center for Tropical Agriculture and the World Agroforestry Centre.

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