

TEN YEARS

of BioCarbon Fund Activity:

Pioneering Climate-Smart Land Use Change
for Development



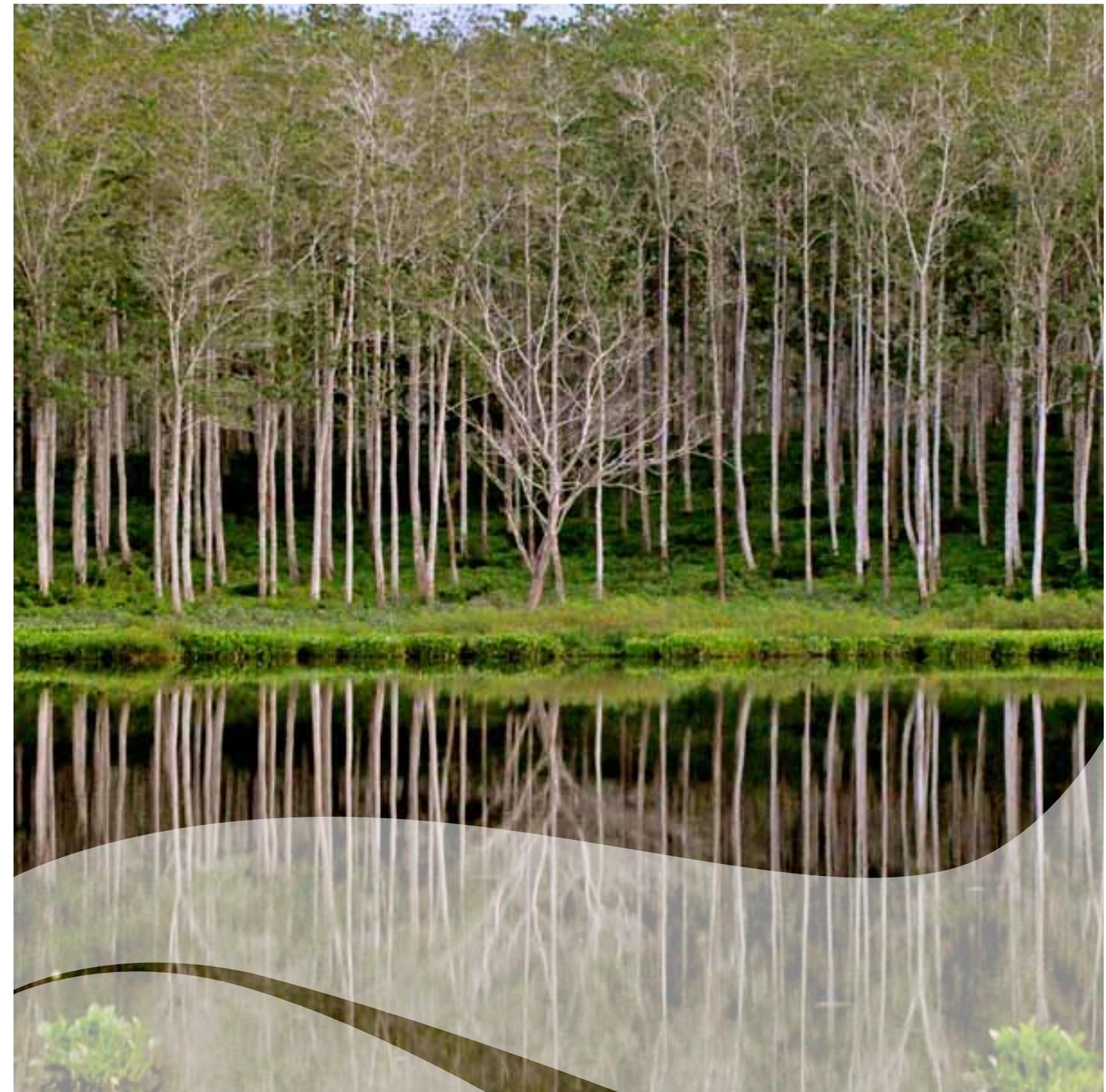
BioCarbon Fund

Over the past decade the **BioCarbon Fund** has paved the way for land-based carbon innovation.

Since it was established in 2004 as the first carbon fund devoted to land use, the BioCarbon Fund has supported projects that transform landscapes and directly benefit rural communities and families. Working on more than 25 projects in 16 countries, the BioCarbon Fund has engaged national entities, private firms, and non-governmental organizations in its charge to restore degraded lands, reduce deforestation, plant trees, and help increase yields. BioCarbon Fund payments for emission reductions have:

- Supported land transformation;
- Created new revenue streams and bettered the lives of rural communities;
- Linked global level climate change mitigation approaches to on-the-ground social and environmental benefits.

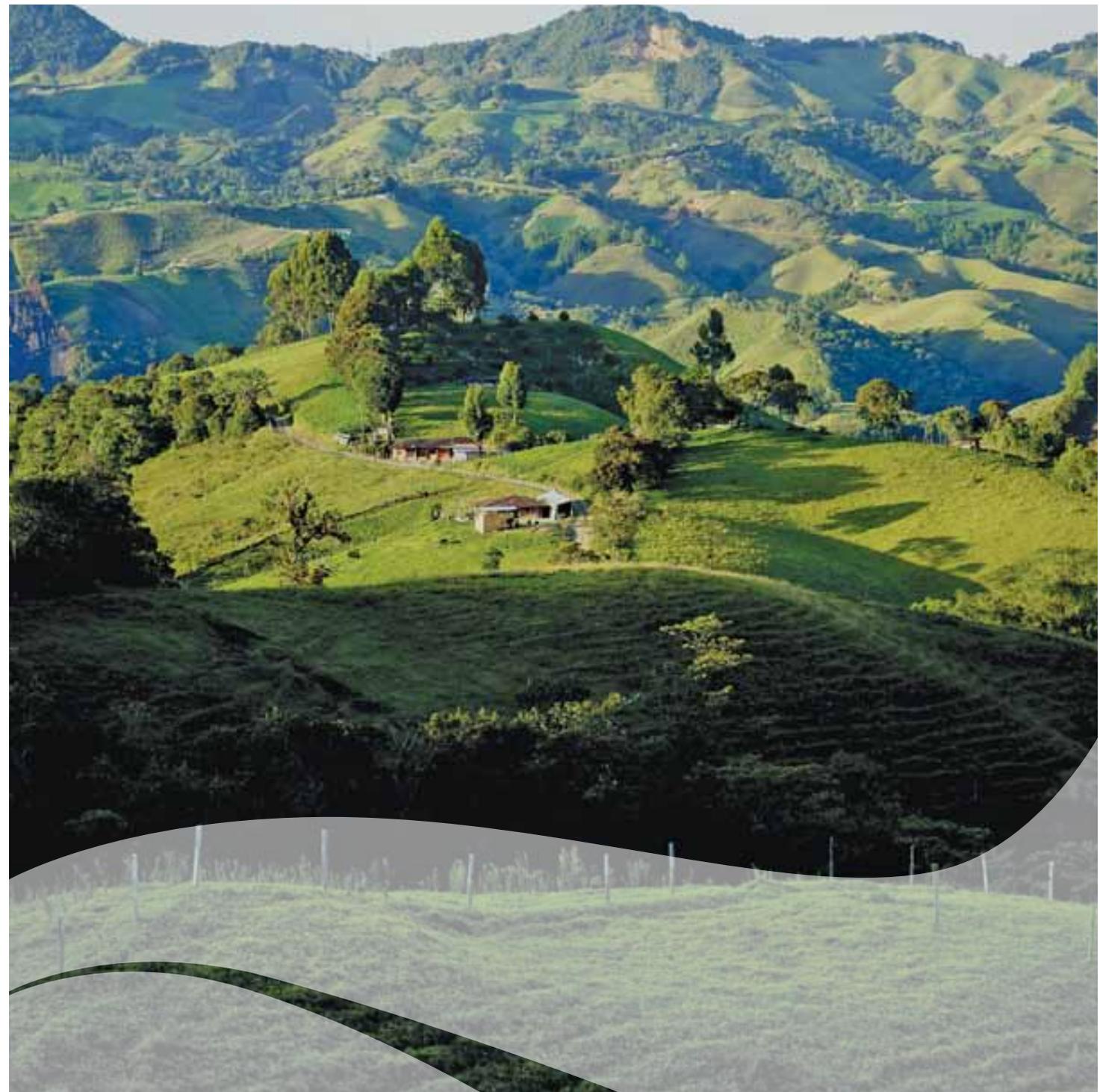
The BioCarbon Fund has learned lessons from its pioneering projects and carbon accounting methodologies across different standards, leading the way for the next generation of activities in the form of the new **BioCarbon Fund Initiative for Sustainable Forests and Landscapes (ISFL)**.



Transforming Degraded Land into Living Land

“We received seed grants in 2008. I chose to raise silkworms. I planted 3 mu (about 0.2 hectares) of mulberry trees, and can earn more than 30,000 yuan a year. It has increased our family income.”

– Wei Wenxian, farmer, Juqun Village of Liangjiang Township, China



BioCarbon Fund projects have supported land restoration that have provided many benefits. BioCarbon Fund projects in **Moldova** and **Ethiopia**, countries with less than 3 percent forest cover, have taken a community based approach to land use change.

In China's Guangxi region, some measurable results since 2006...

Forest coverage increased by
9,858 hectares

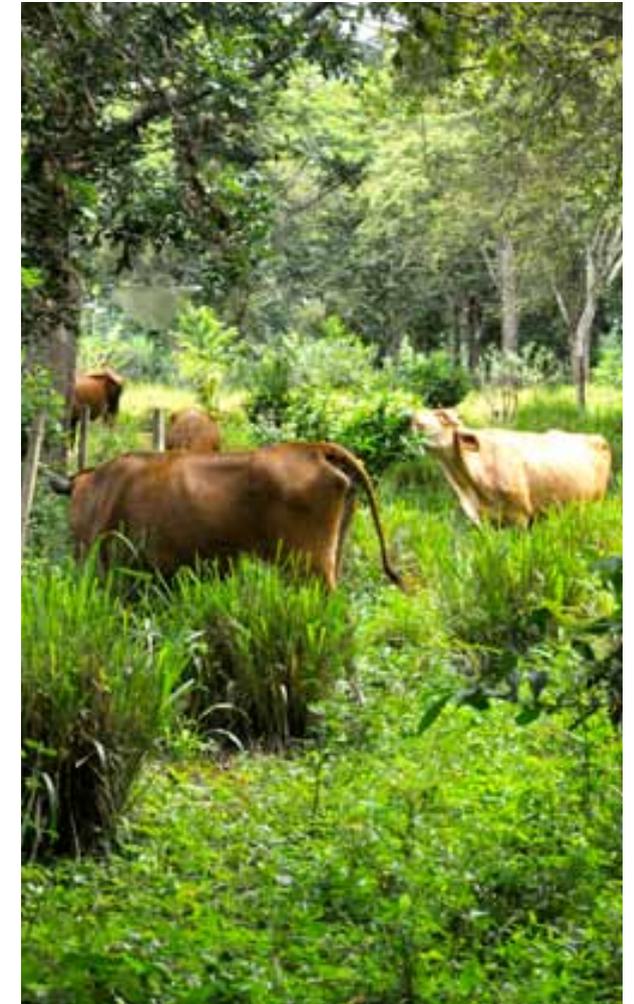
Vegetation coverage rose by
12 percent



Transforming Degraded Land into Living Land

BioCarbon Fund finance has served as a catalyst for environmental transformation that engages different stakeholders and in many cases re-establishes the connection between local communities and the value of forests. Land which has been over grazed and over farmed or lost its forest cover negatively impacts rural livelihoods and depletes the rich flora and fauna of the landscape. Carbon finance incentivizes communities to adopt practices that can turn otherwise unused land or under-utilized land into a valuable asset.

In **China's Guangxi** region, measurable results and environmental change can be drawn from the very first project launched by the BioCarbon Fund in 2006. Forest coverage increased by 9,858 hectares and vegetation coverage has risen by 12 percent. The carbon payments created new revenue streams for 4,037 rural families and payments totaling over US \$636,000, which reduced pressure to cut down natural forests. Together with the economic benefits, the Guangxi project produced tangible biodiversity benefits. The jagged peaks of southwestern China are visible reminders of the presence of a unique karst ecosystem of hills and caves—the largest in the world—that are carved out of soluble limestone which erodes over time. The location of the project is home to plants and animals that only exist in this environment, relying on it for their survival.



2,700

hectares restored
in less than
4 years in
Ethiopia

through soil
conservation and
community forestry
national forest cover
increased from
3 to 8%
in Moldova

BioCarbon
Fund takes a
community-based
approach to land
restoration

BioCarbon Fund projects in **Moldova** and **Ethiopia**, countries with less than 3 percent forest cover, have taken a community-based approach to land restoration. In less than four years, the Humbo Assisted Natural Regeneration project in the mountainous region of southwestern Ethiopia successfully engaged local farmers in seven community cooperatives to manage a land regeneration initiative by building natural fences to reduce grazing pressure and pruning existing trees and shrubs for sustainable wood fuel collection. This endeavor, which restored 2,700 hectares of previously degraded soil and boosted crop yields, has been a model

for other farmer-managed natural regeneration efforts in Niger, Chad and Burkina Faso. After these climate-smart changes, they have received payments for carbon emission reductions which have allowed communities to invest in infrastructure like grain mills and stores that are the lifeblood for the cooperatives to remain successful. They have also provided a market to buy and sell grains and seeds which create new revenue streams to diversity farmer income.

Similarly, the BioCarbon Fund soil conservation and community forestry initiative in **Moldova** increased national forest cover from 3 to 8 percent. Engaging, local councils working with the Forestry Agency of Moldova (MoldSilva) was key to the project's success. Starting in 2002, Moldova implemented a 20,000 hectare initiative to restore the country's forests, to halt erosion of soil from wind and water, and to increase biodiversity. BioCarbon Fund payments for emission reductions helped MoldSilva engage local communities to implement the program. The BioCarbon Fund and MoldSilva have teamed up for a follow-up project to improve the quality of an additional 10,000 hectares of land and to boost the country's supply of sustainable fuel wood and timber.

Taking a community-based approach, these BioCarbon Fund projects have strengthened sustainable connections between communities and their land. BioCarbon Fund projects in China, Ethiopia, and Moldova have made a lasting environmental impact, generating emission reductions that provide revenue that is invested back into the communities.



Creating Local Benefits from a Global Good

“In this community and this farm many producers use environmentally sustainable practices that lower our costs by using local resources.”

– Carlos Gomez, dairy farmer, CoopAgri Costa Rica



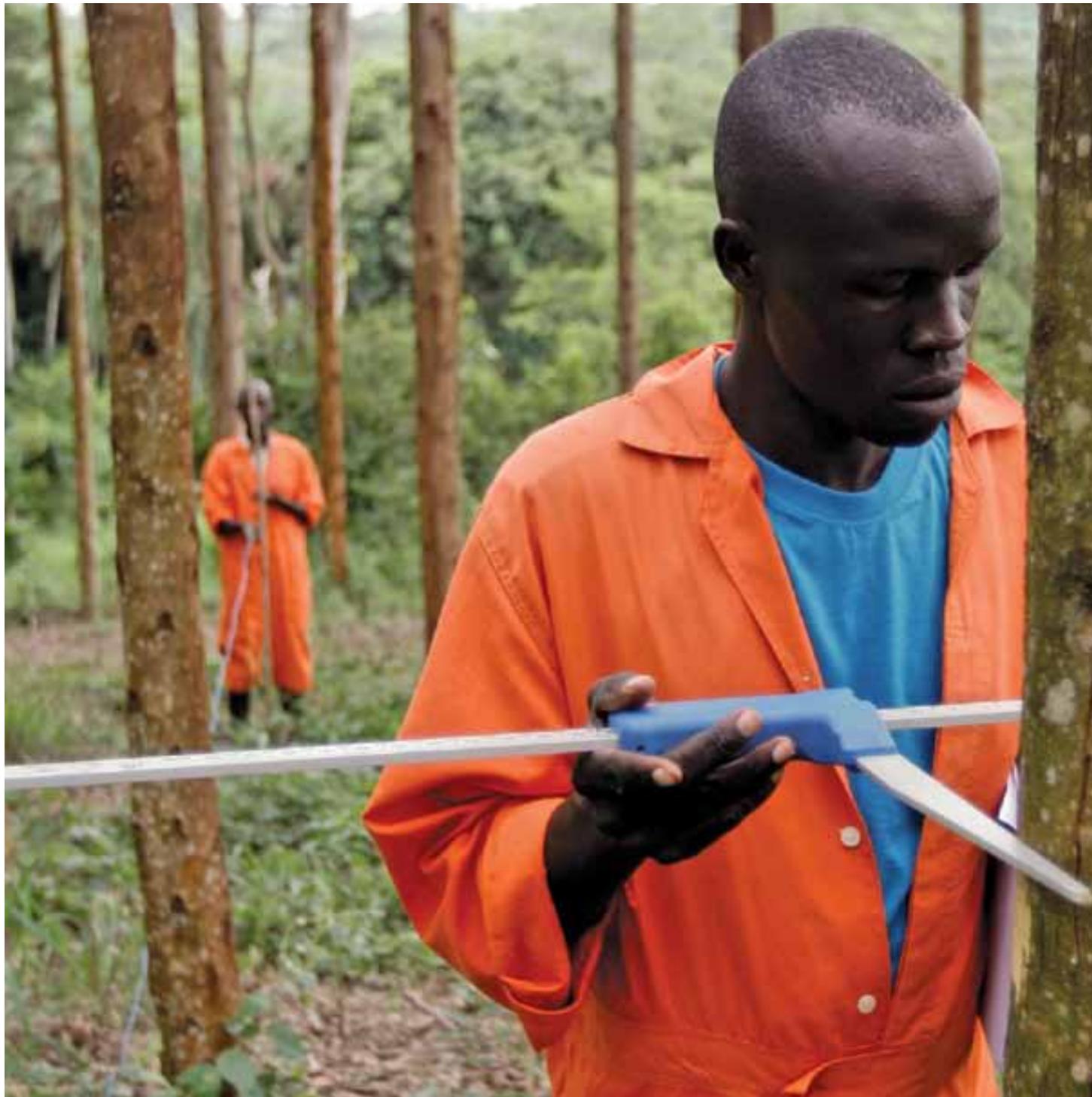
Creating Local Benefits from a Global Good

Working together with local partners, the BioCarbon Fund combines a global approach to climate change mitigation with the local on-the-ground benefits that support rural communities and restore the land. BioCarbon Fund payments for carbon—a global good—enable landholders to turn their otherwise unused or under-utilized land into a more productive asset and to adopt and continue practices that protect their natural resources. BioCarbon Fund activities have created new ways to both incentivize a climate-smart approach to agriculture and forests and to improve livelihoods.

In **Madagascar** in 2008, the BioCarbon Fund was the first to invest in forest management aiming to reduce emissions from deforestation and forest degradation, also known as REDD+, now a globally recognized mechanism for climate change mitigation. The project created a sustainable use protected area, the Ankeniheny-Zahamena Corridor, covering about 370,000 hectares. The creation of the protected land area not only helped preserve the rich biodiversity on the land—including over 2,000 species of plants, 129 species of amphibians and 89 bird species—it also protected forests vulnerable to slash-and-burn practices implemented in response to the rising demand for timber and agriculture land use. On a local level, BioCarbon Fund projects like these allow the land to recover from degradation and restore the ecosystem, which provide natural benefits and

strengthen ties to the community. While on a global level the BioCarbon Fund engagement in this, one of the very first REDD+ initiatives, served as a foundation for future action on REDD+.

Chile's interior dryland is attacked by severe land degradation leading to low productivity and soil erosion. This land was barren and ignored, and remained fragmented after being used for more than 150 years for cattle grazing, fuelwood and coal production. Since 2003, the BioCarbon Fund has been working with local partners to regrow forests, revitalize their land and again turn it into a productive resource. In ten years, the project generated 300,000 tons of carbon emission reductions. Twenty-four farmers with small and medium landholdings on nearly 3,000 hectares of land entered into a land use agreement to allow tree planting on their property. Fundación Chile, a local organization, took on the administrative and technical assistance support to farmers. The project's structure meant that farmers without the capacity to set up a forest plantation could reap the benefits of reforestation, like higher quality soil, rain water absorption and crop yields, without taking on the responsibility for the associated risks of forest management. A forestry company, Mininco, is leading the planting and monitoring for the project with a guaranteed minimum timber harvest from the plots of land.



2006-2012 over 23,000 tons of CO₂ reduction

has been achieved in **Costa Rica** after seedlings were planted, creating natural fences to allow trees to grow.

Meanwhile, 3,000 miles north, BioCarbon Fund efforts have helped 178 small coffee and sugarcane farmers and cattle ranchers in the Brunca region of **Costa Rica** realize the full potential of their decades-long commitment to climate-smart practices. In 2006, the BioCarbon Fund partnered with CoopAgri, a cooperative with a climate-smart approach, and the national forestry financing fund (Fondo Nacional de Financiamiento Forestal, FONAFIFO) to implement an agroforestry, assisted natural regeneration and forest plantation project to strengthen and introduce new sound environmental systems on farmers' private land. From 2006 to 2012, over 23,000 tons of CO₂ reduction has been achieved after seedlings were planted, creating natural fences to allow trees to grow, and planting trees alongside crops to produce nutrient-rich soil and cover.

BioCarbon Fund payments provide some pioneering private sector firms the flexibility to be leaders in developing corporate practices and production methods that are both profitable and sustainable. In **Brazil**, a BioCarbon Fund project with The Plantar Group helped them become a leader in the iron and steel industry, showing how managed plantations can be an alternative to using fossil fuels. This project, spanning 11,600 hectares of land in Minas Gerias, is a landmark – both for being the first to generate temporary certified emission reductions (or tCERS) in 2012, and for being a model for the industry, using renewable charcoal instead of coal coke for pig iron production. The project's success has propelled Plantar to get involved in policy-making, advocating at the state and federal levels for environmentally-sound and sustainable productions policies. Providing payments for results that benefit both the private sector and the rural community is one of the many ways the BioCarbon Fund is combating climate change.

By mobilizing financing for projects that sequester or conserve carbon in forest and agricultural systems, the BioCarbon Fund has been a leader in supporting sustainable land use change and bettering rural communities through the local associated benefits from project activities.

Bettering Lives through a Climate-Smart Approach

“The practices that I do on my farm have changed my life in terms of increased productivity, money, food and environmental conservation. ”

– Samson Oching, farmer, Kenya



Bettering Lives through a Climate-Smart Approach

BioCarbon Fund projects help farmers build skills, which in turn afford higher yields, increased income, support food security, and build climate change resilience. Additionally, BioCarbon Fund payments for emission reductions extend an added layer of support and stable income to small and medium-sized landholders. As farmers learn new methods to revitalize their land—planting trees, crops and harvesting in ways that produce natural nitrogen fertilizers in the soil and benefit the longevity of the land, at no cost to them—they reap the benefits and share their experiences with their community. In turn, communities value standing trees and the resources they provide.

In **Kenya**, the BioCarbon Fund achieved innovation in sustainable agriculture land management (SALM) practices by being the first to issue carbon credits and to develop a carbon accounting methodology for agricultural land management. The benefits to farmers from this project were outstanding. Farmers' maize yields doubled and even tripled in only three years. Working with ViAgroforestry, a Swedish NGO, the project has trained over 30,000 smallholder farmers in sustainable land management practices. Despite not being allowed to own land, women have been actively engaged in the Kenya SALM project on the ground and are known for adopting more diverse land practices, producing more profitable and less vulnerable returns. They have taken

on leadership roles, aggregating information from farms and training the community. The benefits from the increase in income thanks to agriculture yields and carbon payments go beyond the individual farms. This has enabled the community to plow investments back into the land and serve as a success story for other agricultural land management projects.

One of the greatest risks to the forest is the pressure to clear land for agricultural use. In **Zambia**, the BioCarbon Fund is working with Community Markets for Conservation (COMACO), which fosters rural development and conservation using sustainable land management techniques. COMACO provides the local community—which used to poach animals for a living—with agroforestry training that allows farmers to become not only food secure but even creating a food surplus. In just over a decade, COMACO has created a supply chain connecting 80,000 farmers in Zambia to markets in Southern Africa. COMACO-branded products are made by a community of farmers with a “conservation compact” to be better stewards of the land—saving native trees, diversifying crops, and planting nutrient-rich *Gliricidia sepium* trees which fix nitrogen in soil as a type of natural fertilizer. The COMACO approach has raised the average income level.

Maize yields doubled and tripled

30,000
smallholder farmers
trained in Kenya.



BioCarbon Fund supports efforts to promote well-managed farmland and corridors of standing forests.

Farmers plant fast-growing deciduous Gmelina arborea trees which store carbon, and rehabilitate the surrounding land.

The BioCarbon Fund also supports COMACO’s efforts to establish agreements with local chiefdom leaders to promote well-managed farmland and corridors of standing forests. As a result of the increased income from BioCarbon Fund payments, COMACO has made agreements with the Chikomeni, Zumwanda, Mwasemphangwe and Magodi chiefdoms to employ climate-smart agricultural practices.

In **Colombia**, since 2009, the BioCarbon Fund has helped farmers from the El Magdalena watershed region rehabilitate land which had been degraded by cattle grazing. Partnering with Faber-Castell, the pencil producer which sources wood from the region, BioCarbon Fund payments not only provide new revenue streams for local farmers previously dependent on volatile profits from selling cow milk, but they also support new jobs and training from Faber-Castell’s local pencil wood facilities. Cattle farmers, turned foresters, use part of their land to plant fast-growing deciduous Gmelina arborea trees. These trees store carbon, rehabilitate the surrounding land, and allow Faber-Castell to source top grade wood for pencils. Dryland has returned to fertile soil. Degraded earth that had aggravated siltation in the Magdalena River—a commercial thoroughfare—has now been reversed.

Sustainable agriculture land management and land use change supported by BioCarbon Fund projects sets in motion efforts that not only jumpstart crop yields and support sustainable livelihoods, but also make families, farms, communities and chiefdoms more resilient to climate change, while simultaneously capturing carbon.





More information

BioCarbon Fund: www.biocarbonfund.org

BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL):
www.biocarbonfund-isfl.org.

