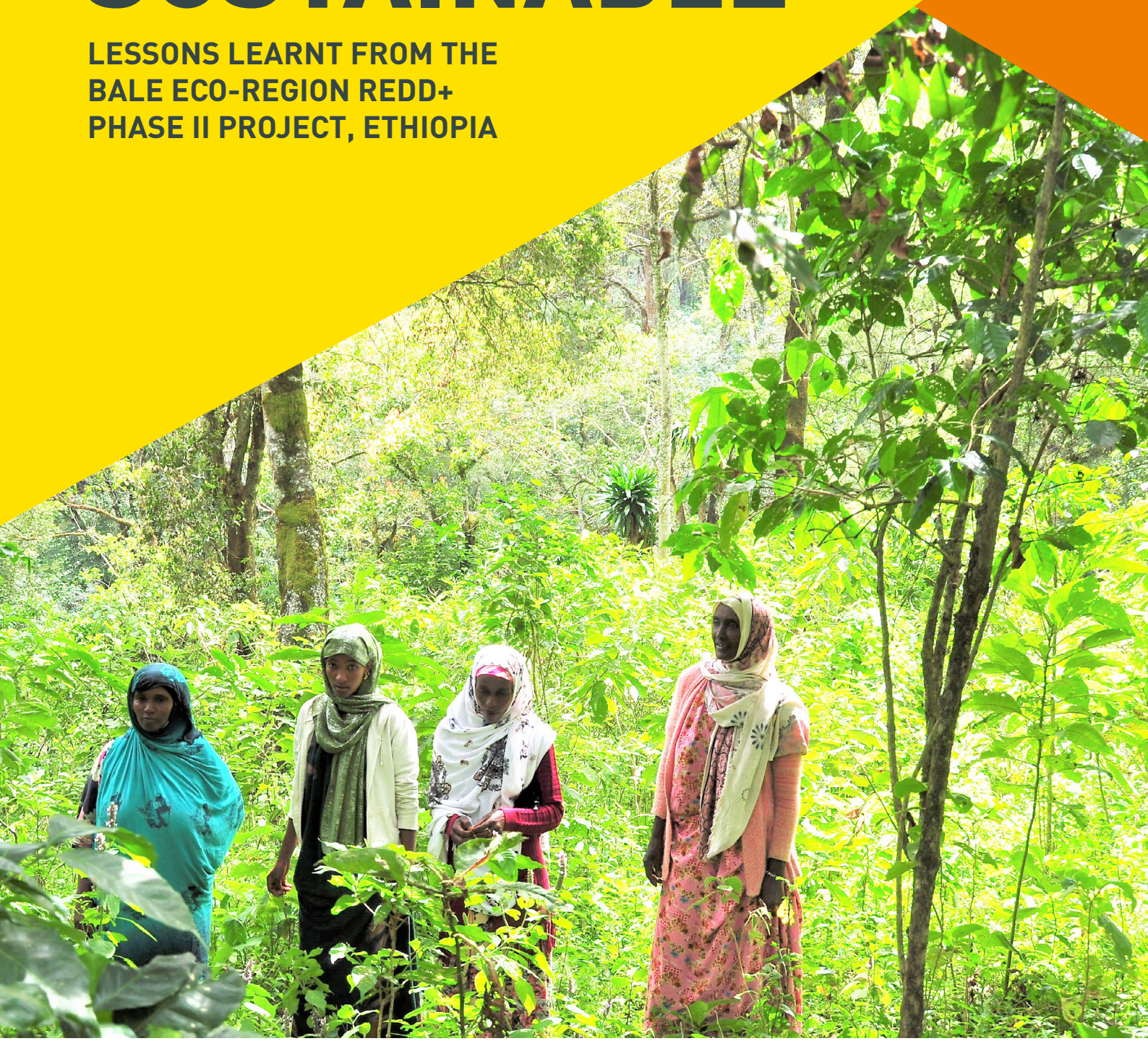
MAKING FORESTS SUSTAINABLE

LESSONS LEARNT FROM THE BALE ECO-REGION REDD+ PHASE II PROJECT, ETHIOPIA



ROYAL NORWEGIAN EMBASSY

SOS SAHEL ETHIOPIA

FARM AFRICA

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"The normal practice in our community used to be clearing the forests to grow maize and plant coffee seedlings. We were consulted to preserve the forest and enhance our benefits as well as to grow incomes."

Abduraham Kule, Chair of a participatory forest management cooperative. Full story on page 23.

What is REDD+?

REDD stands for "reducing emissions from deforestation and forest degradation". The plus sign refers to the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. The REDD+ framework was developed by the United Nations Framework Convention on Climate Change (UNFCCC) in 2013.

25,133 hectares
of avoided deforestation

10,464,345 tCO2e
resultant carbon emission reduction

The money from the carbon credit sales goes back to the local community

SUMMARY

Between 2012 and 2021, Farm Africa worked with the NGO SOS Sahel Ethiopia, with funding from the Royal Norwegian Embassy in Ethiopia, to deliver a REDD+ project that lowers greenhouse gas emissions by reducing deforestation in the Bale Eco-region, while also boosting the livelihoods of local communities living in poverty.

The project built on over 20 years' experience of successful implementation of participatory forest management (PFM) by Oromia Regional State authorities, with support from Farm Africa, SOS Sahel and other partners.

The project achieved impressive results, for people and the planet. Over the period 2012-2020, deforestation in the Bale Eco-region was 58% lower than it was projected to be in the absence of the project. This avoided deforestation resulted in more than 25,000 hectares of forest being saved and emissions being reduced by 10.5 million tonnes of CO_2e.

The project helped more than 34,000 members of 64 forest cooperatives increase their incomes from the sale of forest-friendly products. Average annual household incomes of the forest-dependent communities we worked with in the eco-region rose by 143% from an average 17,000 Ethiopian Birr per household per year at the start of the second phase project in 2016 to 43,000 Birr in 2021. On top of this, cooperatives earnt income from REDD+ carbon credits.

The Bale Eco-region hosts the largest Afro-alpine ecosystem in Africa and is one of the two major biodiversity rich rainforest blocks in Ethiopia. By conserving forests, the project contributed significantly to the conservation of unique flora and fauna.

This document presents key lessons generated by the Phase II of the project, which ran from 2016 to 2021:

- Building capacity of community-based organisations (CBOs): The project used a traditional organisational capacity assessment tool and developed a new tool to monitor the development of the CBOs and strengthen their performance and sustainability.

- Building capacity of government: The project supported the government in developing knowledge of how to implement a REDD+ programme, including forest resources monitoring, support to forest management CBOs, deforestation modelling, carbon emission calculation capacity, verification and sale of carbon credits, and redistribution of revenue to government and communities.

- Incentives for sustainable forest management: Diverse sources of income, including the sale of forest products such as speciality coffee, and revenue from carbon credits, which was split between the government and the community, acted as economic incentives to conserve the forest. Initial plans to engage in sustainable timber harvesting were not able to proceed.

- Community participation, especially women's participation: In Phase I of the project a community-based monitoring mechanism improved community participation in forest management, but women were under-represented. Phase II of the project strengthened gender equality by requiring that one of the two leadership positions in each CBO should be filled by a woman.

The results and learning from the REDD+ project provide foundations that can be built upon for wider landscape interventions in the Bale Eco-region, and beyond.

CONTEXT

Over the last 30 years, Farm Africa has worked closely with communities and local and federal government in Ethiopia to develop and refine a participatory forest management (PFM) approach that supports sustainable livelihood sources for communities and conservation of forest resources.

Farm Africa and SOS Sahel Ethiopia's Bale Mountains Eco-region REDD+ project has developed an integrated PFM-REDD+ model, which has supported long-term incentives for community-based and participatory forest management and biodiversity conservation, and significantly reduced deforestation rates in the Bale Eco-region. The model has been instrumental in the establishment of REDD+ mechanisms in Ethiopia and has been adopted by the Government of Ethiopia's national REDD+ programmes.

The Bale Eco-region, where the REDD+ project was implemented, is an area of major ecological and biodiversity significance, comprising diverse ecosystems and forest types. The eco-region belongs to the Eastern Afromontane biodiversity hotspot, one of 36 global biodiversity hotspots and a tentative UNESCO World Heritage Site. It hosts the largest Afro-alpine ecosystem in Africa and is one of the two major biodiversity rich tropical rainforest blocks in Ethiopia.

The forests together with the Afro-alpine plateau host a globally unique and diverse fauna and flora, including a significant number of rare and endemic species such as Nyla, Abyssinian wolves and many others. It harbours about 67% of mammals known from the Afromontane eco-region in Ethiopia. It is known as a hotspot of medicinal plants and is one of the birthplaces and a centre of diversity of Arabica coffee (Coffea arabica) where the species still exists in a wild state.

The eco-region is the water tower for the entire south-eastern and eastern drainage basin serving the pastoral and agro-pastoral communities in the arid, drought-prone lowlands of Ethiopia as far as Somalia and northern Kenya. More than 40 rivers flow from the Bale Mountains, which feed five major river systems that flow through the arid lowlands in the drainage basin into the Indian Ocean.

The eco-region is inhabited by a population of about 1.6 million people. There are also more than 12 million people living downstream of the Bale Eco-region who directly depend on the region's rivers and other ecosystems services for their livelihoods.

Improved management and conservation are crucial to sustaining the eco-region and to enhancing the livelihoods and resilience of its people. The main problem of the eco-region is deforestation and biodiversity loss due to human pressure. Between 2000 and 2011 alone the Bale Eco-region experienced an average annual deforestation rate of 2.6% and lost 178,000 hectares (ha) of high forest. This caused emissions of 70 million metric tonnes of CO_2e greenhouse gases and had a significant detrimental impact on biodiversity and livelihood opportunities for rural populations.

Farm Africa / Lisa Murray

Farm Africa / Lisa Murray

FOREST MANAGEMENT IN ETHIOPIA IN THE LAST 50 YEARS

Today less than 4% of Ethiopia's land is high forest, compared to around 30% at the end of the 19th century (WBISPP, 2004). Poorly defined forest property rights and insecurity of tenure have contributed to this deforestation. In 1975 forests were decreed state assets, shifting ownership, management responsibilities and use rights from private owners and local communities to central government.

Forests offer considerable potential for sustainable production of high value timber and non-timber forest products (NTFPs), such as coffee, honey and spices. However, a forest management system that prioritised forest protection over production stifled the development of forest-based businesses. Individuals were incentivised to exploit forests unsustainably, or convert them to other land uses, without investing in proper land management, as future access rights remained uncertain.

As forest use was deemed illegal, any product extracted could only be traded informally, at lower prices, making forest-based livelihood activities less attractive than alternative land uses. Communities understandably saw limited value in conserving and managing forests, driving widespread and rapid deforestation.

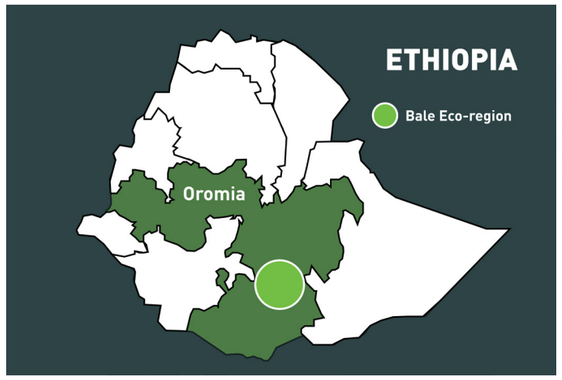
Since the 1990s, Farm Africa and SOS Sahel Ethiopia have worked with the Oromia regional government to develop a participatory forest management (PFM) approach that relies on formalised agreements between local communities and government. These agreements set out management responsibilities and arrangements for all people making a living from the forest, and ensure that its benefits are shared equally.

The hallmark of our PFM approach is a focus on giving local people an economic incentive to sustainably manage and protect forests. In return for protecting precious biodiversity, communities are allowed to harvest the forest in a sustainable way, making use of forest resources such as wild coffee, spices, medicines and honey. Farm Africa has helped to develop new and valuable markets for these products.

PROJECT BACKGROUND

The Bale Mountains REDD+ phase II project, financed by the Royal Norwegian Embassy (RNE) in Addis Ababa was implemented in the Bale Eco-region in south-eastern Ethiopia, Oromia Regional National State, between 2016 and 2021. The project area covers 11 woredas (districts) of the two administrative zones (Bale and West Arsi zones). The goal of the REDD+ Phase II project was to contribute to Ethiopia's sustainable and green growth initiatives to reduce poverty.

Under Phase I of the project, implemented from 2012 to 2015, Farm Africa had supported the establishment of REDD+ mechanisms through PFM community-based organisations (CBOs).



The second phase aimed at strengthening the model of PFM-REDD+ in the Bale Eco-region by shaping and strengthening the jurisdictional REDD+ activities in the Oromia region and in the country. Phase II of the project aimed to:

- Reduce deforestation.
- Improve livelihoods of forest-dependent communities.
- Build the capacity of the CBOs and government to improve sustainable forest management practices.
- Enhance community participation in forest management with special emphasis on the role of women and their ability to access benefits from forest management.
- Ensure sustainability of the project outcomes by sharing the lessons learnt with government and ensuring a smooth transition of REDD+ activities into the jurisdictional Oromia Forested Land Programme (OFLP) REDD+ scheme, which seeks to reduce deforestation across the whole of the Oromia Regional State.

All project objectives and activities contributed to the country's Climate Resilient Green Economy (CRGE) strategy and were designed to generate meaningful ecological, economic and social benefits to the local communities.


Farm Africa /Tessa Stanley-Price

PROJECT RESULTS

The project delivered significant results in sustainable livelihoods and environmental conservation. Across the period 2012-2020 (the two phases of the project), the following results were achieved:

Reduced deforestation: the project contributed to the reduction of deforestation from a predicted 43,136 hectares (ha) to 18,003 ha actual deforestation, or an avoided 25,133 ha of deforestation. This represents a reduction of 58.3%.

Avoided carbon emissions: the reduced deforestation and conservation actions of the project generated a cumulative carbon emission reduction of 10,464,345 tCO_2e.[1]

Increased average household incomes: between 2016 and 2021, the average household income of the targeted communities increased from 16,994 Ethiopian Birr (ETB) to 42,869 ETB – and this did not include the revenues generated from the sale of forest carbon emission credits.

The project has demonstrated that the PFM model is a viable mechanism for the implementation of REDD+, and most likely the most sustainable one through the involvement of forest-dependent communities. The success of this project has supported the Government of Ethiopia to take up REDD+ initiatives through variations of PFM or similar models in four regions, home to a total of 95% of the country's forest resources.

[1] As audited and verified by independent external evaluator TÜV SÜD South Asia PVT Ltd using Verified Carbon Standard and Climate, Community & Biodiversity Alliance Standards (VCS/CCBA) validation criteria

Farm Africa / Lisa Murray

The project facilitated the first ever sale of carbon credits earned by avoided emissions in Ethiopia.

Some of the main achievements of the second phase of the project (2016-2021), which contributed to these results are:

1. Sustainable improvement of forest management practices by CBOs and government institutions through:

Increased average managerial and organisational capacity of 64 forest CBOs: from 60% at the baseline to 87% at the end of January 2021 according to the first version of the organisational capacity assessment tool (OCAT), which focuses on governance, administration, natural resource development, forest protection and forest utilisation; and from 35% to 70% according to a second version of the OCAT, which considers leadership, business development and women's empowerment aspects.

Improved government organisational capacity, improving the knowledge of government staff in charge of jointly managing the forest with the CBOs from **44% at baseline to 70%** at the end of 2020.

Significant contribution, throughout the project, to the practical implementation of the Government of Ethiopia's environment and forest-related development policies and strategies. Through the REDD+ national network, initiated by the Bale Mountains Eco-region REDD+ project, the lessons generated by the project (on capacity building of CBOs, community-based monitoring of forest resources, deforestation modelling and benefit-sharing mechanisms) and OCAT (which was introduced by Farm Africa and now adopted across the country where PFM is implemented) contributed to the design and implementation of REDD+ strategies at regional and national level, and significantly influenced the organisation and approaches of the Oromia Forested Landscape Programme (OFLP) (funded by the World Bank), jurisdictional REDD+ in Oromia and flagship REDD+ programme for the Ethiopian government.

2. The first forest emission reduction (ER) sell in the history of REDD+ programme in Ethiopia

First ever carbon credits sale in Ethiopia: the project facilitated the sale of the carbon credits earned by the avoided emissions as a result of the Bale Mountians Ecoregion REDD+ Project (BMER) implementation. This is the first in its kind in the history of REDD+ in Ethiopia. The earnings have been distributed between the Oromia Forest and Wildlife Enterprise (OFWE) and the forest management CBOs on an agreed 40:60 ratio.

Incentive for forest management: in addition to the carbon credit income, the project supported the forest management cooperatives to earn more than 500,000 Euros from forest coffee marketing. By developing forest product enterprises, it has proven that the integration of the PFM approach with the REDD+ scheme is more self-sustaining than simple REDD+ programmes, bringing an additional steady financial incentive to manage forest resources through the establishment of enterprises selling sustainable forest products such as wild coffee to international markets.

3. Increased community and women's participation in forest management

Improved community perception of and participation in forest management: the perception of PFM and the participation of community members in the REDD+ activities increased from 50% to 86% between 2016 and 2021.

Increased women's representation in CBOs' executive committees: the number of women in higher leadership positions increased from 10 in 2016 to 61 in 2021 (against a target of 40).

Farm Africa / Lisa Murray

KEY LESSONS: BUILDING KNOWLEDGE AND CAPACITY OF CBOS AND GOVERNMENT

IMPROVING CBOS' CAPACITY TO SUSTAINABLY MANAGE FORESTS

Farm Africa and SOS Sahel's formal training and supportive supervision and mentoring of CBO staff and members in leadership skills, forest management and forest monitoring has proven efficient in improving CBOs' capacities. This in turn quickly contributed to sound management of forests and a significant reduction of the deforestation activities in the areas under CBOs' management.

Following feedback from stakeholders that there were substantial gaps in areas not closely monitored by the organisational capacity assessment tool, another tool was developed to assess the CBOs' capacity in the following areas:

1. Leadership: skills, motivation, transparency of decision-making drivers and stability of CBO members in leadership positions.

2. Property management: internal control systems guaranteeing the good use of resources.

3. Forest management: combining indicators on forest protection, development and utilisation.

4. Business development: capacity to engage in profitable businesses.

5. Gender empowerment: improving women's participation and leadership in the CBOs.

This supported the development of more tailored training and development plans targeting identified gaps in these areas. Alongside training of executive committee members, the project delivered training to individual farmers in forestry-related training, apiculture and apiculture business management, saving methods and petty trade.

Farm Africa / Lisa Murray

STRENGTHENING GOVERNMENT COORDINATION AND OVERSIGHT CAPACITIES

One of the project's cornerstones was to support increased government capacity to sustainably manage forests (directly and through the oversight and coordination of CBOs) and to coordinate REDD+ mechanisms.

However, high government staff turnover affected the project's progress in improving government staff's knowledge and skills. To overcome this challenge:

- The project delivered short training sessions plus coaching and advisory support to the relevant project stakeholders (Woreda cooperative office, development agents, the Oromia Environmetal Protection Authority (OEPA), OFWE and OFECCA) on forest monitoring systems and CBO capacity assessment tools.

- The project developed and disseminated documents and guidelines on REDD+ approaches and implementation systems to ensure awareness and understanding, by all relevant sector offices.

- The project initiated the establishment of the REDD+ national network and provided lessons and model mechanisms for Informed Free Prior Consent (IFPC), anti-corruption, environmental impact monitoring, deforestation modelling, community based monitoring (CBM), organisational capacity assessment tool (OCAT), carbon accounting, and a benefit-sharing mechanism.

- The project laid a solid methodological foundation for the design and implementation of REDD+ through the development of a comprehensive programme design document (PDD), using the combined Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Alliance (CCBA) standards in preparation for carbon credits payment. Through the document development process, which involved OFWE staff, valuable skills were transferred from international experts to government representatives and project team members.

These further contributed to the design and implementation of REDD+ strategies at the regional and national levels and significantly influenced the organisation and approaches of the Oromia Forested Landscape Programme (OFLP), the jurisdictional REDD+ in Oromia and flagship REDD+ programme for the Ethiopian government and the Southern Nations and Nationality Peoples' Region (SNNPR) REDD+.

TOOLS DEVELOPED BY THE PROJECT AND NOW IN USE BY CBOS/GOVERNMENT

Organisational capacity assessment tool (OCAT) and associated guidelines
This document was designed to guide capacity building of forest CBOs. The document enables technical staff and government experts to methodologically assess the gaps of forest CBOs to support capacity-building efforts. Additionally, this guideline is intended to serve other interested organisations interested in replicating the approach used by the OCAT.

Historical Land-Cover Change and Projected Deforestation Modelling
This document was produced as a reference providing analysis of historical data and deforestation modelling over 20 years (2010 to 2030). Every step of the analysis has been informed by the VM0015 Avoided Deforestation methodology, developed by the Amazonas Sustainable Foundation and the BioCarbon Fund (The World Bank). This methodology allows for the consideration of "frontier" deforestation. The document serves for calculations of avoided emissions and as a reference of application of the VM0015 for future similar work by government and other organisations.

Harmonised Participatory Forest Management (PFM) guideline
The guideline provides a general framework for the implementation of the PFM approach. It is flexible enough to accommodate site-specific issues based on the socio-economic set-up and natural environment of the intervention sites, which makes it a useful tool for local government and partners across the country.

Project Design Document (PDD)
This holistic document presents how the whole REDD+ project is designed, implemented and monitored, starting from the development of the idea note (IN) to approval, measurements, reporting and verification (MRV) systems and up to registering and selling of forest carbon emission reduction credits. It provides a valuable model upon which future project documents can be developed to go through validation of Climate, Community & Biodiversity Alliance Standards and Verified Carbon Standard.

KEY LESSONS: CREATING SUFFICIENT INCENTIVES FOR SUSTAINABLE FOREST MANAGEMENT

The REDD+ mechanism is based on the premise that revenue from carbon credit sales creates sufficient incentives for the conservation of forest resources. However, implementing a REDD+ scheme, assigning attribution for reduced emissions, and determining how benefits should be distributed, have proven complex.

The Bale Mountains project was the first REDD+ project in Ethiopia to successfully combine PFM and REDD+ mechanisms for natural forest conservation. The project has shown that forest management CBOs have strong potential to improve livelihoods and household incomes through the production and marketing of forest products such as coffee. Due to the uncertainties of the carbon credit market, REDD+ schemes should consider diversification of incentive sources through a combination of carbon credit sales and livelihoods development.

Income from carbon credit sales boosted the trust between communities in the region and the various actors engaged in the implementation of REDD+, including the Oromia Forest Landscape Programme, which is in charge of coordinating all REDD+ activities in the region on behalf of the government.

A FAIR BENEFIT-SHARING MECHANISM

During the second phase of the project, the partners worked with stakeholders to pioneer a fair and transparent benefit-sharing mechanism guiding the distribution of carbon credit revenues. Revenue was shared between the government (OFWE) and the 64 community-based organisations (CBOs) supported by the project who bear the responsibility of managing and protecting the forest resources. A participatory approach was used to determine the following allocation criteria:

• The proportion of revenues allocated to the government (through OFWE) and to the CBOs was set at 40% / 60%.

• Four criteria were agreed upon to guide the allocation between the different CBOs:
  - Avoided deforestation (50%),
  - Membership size (20%),
  - The forest area (18%), and
  - The OCAT result (12%).

The project further discussed with stakeholders the importance of fair benefit redistribution criteria between CBO members. However, the OFLP approach is to promote collective social development rather than distribution amongst individual household members. This highlights the importance of how the carbon credit revenue is used by both the government and the CBOs. Workshops were held for stakeholders to discuss how the money would be used for the benefit of the members – and how the process would be supported and monitored by the unions. Training was delivered to CBO committee members and government staff to support the CBOs to develop, implement and monitor carbon money utilisation plans. CBOs receive their share of money upon completion of a realistic utilisation plan. Plans included the installation of flour mills, the construction of a warehouse, or the purchase of grains for drought-affected communities.

While the ratio and criteria (or benefit-share calculation methods) now used by OFLP differ from the ones supported by the project, the participatory process and establishment of the first benefit-sharing mechanism by the project and the lessons learnt along the way were critical to the development of OFLP's current benefit sharing mechanism.

A new flour mill paid for by carbon credit income.

DIVERSIFICATION OF INCENTIVE / LIVELIHOOD SOURCES

The process for recognition of carbon credits remains complex and uncertain, which implies that it can only be sustainable with a strongly established monitoring and coordination mechanism. The process for redistributing benefits to community members is also a lengthy process, requiring management of expectations of the communities for a long period. At the end of the first phase of the project, it appeared critical to palliate the uncertain and lengthy carbon credit sale process by ensuring sources of more immediate and certain incentives to forest conservation. The initial plan was to support sustainable timber harvesting. However, it was concluded that while potentially feasible in the region, sustainable timber harvesting could not be envisaged without much more data available on the forest resources, and that the data collection process would take 10 to 15 years.

After consultation with the CBOs and local government, Farm Africa and SOS Sahel Ethiopia with the support of Forests of the World decided to support the production of specialty coffee and long-term linkages of selected CBOs to international buyers as an incentive for forest conservation. Building on their long-standing experiences, the partners supported CBOs to increase the quality and quantity of coffee they produce.

The project provided training on coffee stamping, coffee post-harvest handling techniques and domestication of forest coffee into garden coffee. As a result, CBOs have improved forest coffee quality from grade 6 to specialty coffee (grade 1 and 2) as per the CEX standard. The project linked CBOs to viable coffee markets in Europe and the USA. Consequently, 13 CBOs and 365 individual farmers sold more than 67 tonnes of specialty coffee to international markets in 2020 and 2021, with a higher average price of 4.34 to 5.45 USD per kg of coffee compared to the 1.08 USD they could fetch with lower quality coffee before the intervention in the local market. In total, the community generated close to 6.7 million Ethiopian Birr (more than 114,000 Euros) from coffee sales in the coffee season running from October 2020 to July 2021.

13 CBOs and 365 individual farmers sold more than 67 tonnes of specialty coffee to international markets in 2020 and 2021.

KEY LESSONS: INCREASING COMMUNITY AND WOMEN'S PARTICIPATION IN FOREST MANAGEMENT

COMMUNITY-BASED FOREST MONITORING MECHANISM

The Bale Mountains Eco-region REDD+ project has engaged all community members (men, women and young people) who were living in and surrounding the forest both at the time of the project design and implementation of project activities. By proving that the PFM model and development of strong community-based organisations can be used as a REDD+ implementation mechanism, the project has formalised communities' rights to sustainably use the forest and forest products for subsistence as well as commercial uses. Communities in the project areas now view themselves as guardians of forest resources and have increased bargaining power to claim their rights to share the benefits from carbon credits, trophy hunting etc, supporting both sustainable financing of forest conservation activities and improvement of communities' livelihoods.

The project has experimented with different ways of improving community participation in forest conservation activities. One of the successful approaches was the establishment of a Community-Based Monitoring (CBM) mechanism, which puts responsibility for the forest within the hands of community members, under the oversight of community institutions and local government.

CBM is undertaken by elected members of the respective forest management CBOs. It is an expression of participatory monitoring and evaluation in which a community team periodically checks whether or not what is planned in the PFM document has been undertaken according to the forest management plan. The process is driven and owned by the local communities and facilitated by outside experts. The information that is generated from the monitoring aids the communities in making wise decisions about their forest management. CBM can also provide information for government-led natural resource management – reports generated by the CBM mechanism are shared with the Oromia Forest Wildlife Enterprise (OFWE).

61 out of 64 CBOs had a woman in one of the two highest leadership positions by the end of the project.

WOMEN'S EMPOWERMENT

While community participation was significantly boosted in the first phase of the project, the project partners initially struggled to ensure women were sufficiently involved in the CBOs, particularly at leadership level.

During the second phase of the project, new CBO by-laws were introduced, stating that one of the two leadership positions in the CBO (either Chairperson or Deputy Chairperson) should be held by a woman. The change was supported by local government offices including the Cooperative Development Offices. It successfully increased representation of women in leadership positions, with 61 of the 64 CBOs having one woman in one of the two highest position in their committee by the end of the project, which in turns supported increased women's membership of the CBOs. This further fostered a better recognition of women's role in forest conservation and in decision-making processes, including on how to best use the revenue from forest resources.

There is also an increased awareness and recognition among project beneficiaries that women's economic and other rights are still not properly protected, that they are highly affected by environmental and social problems, and that less emphasis is given to their participation in protecting the environment. The results from this project indicated that if women are empowered and gender equality is achieved, women can play their role in economic, social, political and environmental development.

In addition to their increased participation in resource management, the project helped women involved to generate income and better feed their families. Executive committees of the CBOs supported by the project now give priority to women-led households for utilisation of old or fallen trees in the forests managed by CBOs, as well as for loans provided by the cooperatives.

THE WAY FORWARD

The project laid a solid methodological foundation for the design and implementation of REDD+ through the development of a comprehensive programme design document (PDD) using the combined Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Alliance (CCBA) standards in preparation for carbon credit payments.

The knowledge and skills gained have been transferred from international experts to OFWE staff and the project team. These knowledge and skills include forest carbon stock assessment, preparation of a PDD, deforestation modelling, deforestation monitoring and quantification of forest carbon emissions. The tools and techniques developed in the PDD and the processes followed in the Bale REDD+ project have paved the way for subsequent REDD+ initiatives in Ethiopia, including for the jurisdictional Oromia Forested Land Programme (OFLP) REDD+, which is receiving funds from BioCarbon Fund, the Forest Carbon Partnership Fund (FCPF), and for the REDD+ project currently being implemented by the World Bank in the Southern Nations and Nationality Peoples' Region (SNNPR).

The project has served as a knowledge hub for REDD+ initiatives in Ethiopia and helped to increase the confidence of natural resource management experts while practically applying forest monitoring models and emissions accounting algorithms. It was also a pivotal tool for the development of national REDD+ governance systems, including the introduction of social and environmental safeguards (SES), free prior community informed consent (FPIC), and work on anti-corruption measures and the successful design of a carbon benefit sharing mechanism/model (BSM) and the strong establishment of a community-based monitoring (CBM) system.

At the end of this second phase of the project, we offer the following recommendations to support the sustainability of the REDD+ mechanism and project intervention in the Oromia region:

• Work on knowledge generation on indigenous tree species in the Bale Eco-region, including annual tree growth rate and tree form factor, volume tree and annual allowable cut. In addition, collaborative action research work with higher learning institutions is needed to support the analysis of the generated knowledge and the long-term development of a framework for sustainable timber harvesting in the region.

• Continue working on forest coffee quality production and increasing market segmentation to enhance income generation from non-timber forest products as an alternative option to sustainable timber harvesting.

• Despite the progress made in this area, CBOs' managerial and organisational capacity, particularly in the areas of leadership and financial management, requires further work and investment. Supporting the growth of these organisations into fully independent and self-sustaining cooperatives is a long-term process, which spans beyond a project timeframe.

• Continue to promote the use of fuel-efficient cookstoves, which have not only been proven to contribute to reducing fuel wood consumption, but also bring health benefits to women and children by reducing the smoke they inhale.

• Support implementation of the benefit-sharing mechanism and monitoring of how carbon credit revenue is utilised by both CBOs and the OFWE, ensuring the best possible return for communities and long-term conservation goals.

Beyond these specific interventions, the project results, even though very positive, also demonstrate the limitations of a sectoral approach to forest management and conservation. Significant reductions of deforestation rates, success of PFM approaches at a wider scale, development of sustainable value chains for all forest-dependent community members, and protection of resources (especially forest and water) across the boundaries of specific REDD+ programmes require a wider landscape approach, taking into consideration the following recommendations:

• **A wider geographical scale:** while the participatory forest management approach supports livelihood options for forest-dependent communities, additional pressures on resources are posed by adjacent communities, who often live in more arid and harsh climates and landscapes and encroach on the protected forest areas in search of water and/or land. A wider landscape approach allows analysis of these interactions and supports the improved management of resources across interdependent ecosystems.

• **A wider stakeholder scale:** questions related to water, land, farming practices, adaptation to climate change, access to finance, economic empowerment, business and trade environment, relations with the private sector etc, all impact communities' and government decision-making related to forest conservation and management. It is critical to bring all relevant stakeholders together, support relevant knowledge generation and understanding of interests and constraints across the board, to ensure that sustainable cross-sector collaboration and planning support the conservation of forests while securing sustainable livelihood options for all.

• **A wider funding scale and timeframe:** addressing cross-sectoral complex issues, supporting the establishment of fully sustainable enterprises, promoting long-lasting institutional change and collaboration mechanisms, requires alignment and conjunction of funding across sectors. It also requires the establishment of frameworks that guarantee the implementation or support of interventions across timeframes that are sufficient to observe systemic changes (on institutions and landscapes) and transcend limitations related to projects' and individuals' turnover in implementing and funding agencies (including government institutions).

SAVING THE FOREST PAYS THE COMMUNITY BACK

Birbirsa participatory forest management cooperative (PFMC) is one of 64 cooperatives supported by the REDD+ project. Since it was set up in 2007 with support from Farm Africa and SOS Sahel Ethiopia, the cooperative has been managing 4,744 hectares of forest land in Chiri kebele of Delo Mena woreda.

Attracted by the cooperative's main aims of saving natural resources and earning an income from forest-friendly businesses, membership of the cooperative has grown from 76 to 960 people over the last ten years. The cooperative has become one of the effective entities in reducing carbon emissions by reducing deforestation and degradation.

Income from carbon credits has further increased the motivation among cooperative members and other members of the community to strengthen their forest management. It has also enabled the cooperative to build a grain store and start a business selling maize bought from areas more than 400km away to the local community at reasonable prices.

The cooperative is proud of its significant achievements, particularly the reduction in deforestation and carbon emissions achieved.

Mr Aliyi Jilo, a former chairperson of Birbirsa PFMC and current leader of cooperative managing committee, commented:

"I remember well, our elders had a good position towards the forest and they used to take care of it. They were very sensitive not to remove a leaf of a plant. But, this attitude had decreased among this generation, which resulted in tremendous destruction to our natural resources."

Explaining how these attitudes started to change, Mr Aliyi Jilo recalls: "Farm Africa and SOS Sahel have facilitated us, the government and the community, to manage our forests bilaterally. They supported us to set up cooperatives and equipped us with skills through training. The project helped us share experiences of groups in the other parts of the country. And also, we had the opportunity to learn from the failures of others with degraded natural resources due to negligence."

Birbirsa PFMC started its work conducting baseline monitoring of the forest in their identified area. The monitoring activity included types of trees grown, trees in great danger and trees that need special protection to be kept for the next generation.

"The greatest success we have achieved is the attitudinal change developed among us, taking care of our forests. The sense of ownership has been well established among us and we are discharging our responsibilities, not expanding farming lands and coffee plantations inside forests," said Mr Aliyi Jilo.

Farm Africa / Lisa Murray

Since 2007, the cooperative has managed 4,744 hectares of forest land.

A FLOUR MILL PAID FOR BY CARBON CREDITS

Munisa Kedir, Deputy Chairwoman of Hida Bira participatory forest management cooperative (PFMC) in the woreda of Goba, is just one of thousands of people whose lives have been transformed by forest conversation. The PFMC manages 2013 hectares of forest, and its members (345 households) earn money by conserving the forest, most significantly through the sale of carbon credits.

After receiving their share of income from the sale of carbon credits on the international market, members of the cooperative agreed to start a flour mill business. One of the first things they did was buy and install the required machinery. Residents of Wajitu Shaba kebele will no longer have to undertake long and dangerous journeys to get their grains milled as a result. Milling grains is seen as women's work, so the new flour mill will particularly benefit women and girls.

Munisa is one of many women who used to make the arduous journey to mill grains for her family. Her experiences highlight the dangers women face when having to make such long journeys. Munisa remembers a terrifying time in the past when travelling to get grains milled.

To get teff and wheat flour, she and her husband agreed to go to a flour mill together. They loaded their grains on horseback and headed to the mill house. After a lengthy trip through fields and hills, on their arrival at the nearest flour mill, there was no electricity. They decided to try another mill house even though it was also far away but got separated from each other.

Munisa continued anyway, determined to get flour. She tried flour mills in four different villages until she arrived at Goba town, 30 kilometres away from her home village. Exhausted, she waited there for the rest of the day. It was not until the evening that Munisa and her horse could start the long journey back, despite having no food or drink. Travelling at night is far more dangerous than travelling in daylight, and Munisa had to cross dark and dangerous forests as she travelled from village to village.

"It was around 1 am when we got to near a water spring. I heard a group of hyenas screaming out loud ... I had no choice but to hold my breath, stay calm and see what would happen."

Luckily, Munisa and her horse returned home unharmed. Thanks to plans for a new flour mill made possible by income from the sale of REDD+ carbon credits, women in Hida Bira will be spared more arduous journeys like Munisa's in future.

The Hida Bira participatory forest management cooperative is investing their income from the sale of carbon credits in a flour mill business.

MEET THE ALL-FEMALE FOREST PROTECTORS

Biftu Beri Women's Village Savings and Loan Association (VSLA) was set up with 25 members in 2015 with the support of Farm Africa's REDD+ project in Kumbi kebele in the Bale Eco-region. Members meet and save money on a weekly basis to strengthen their small businesses and discuss how to protect the natural resources around them. All the women in the group have become members of Bedatu Kumbi participatory forest management cooperative, which unites residents in a coordinated effort to protect the 15,230 hectares of surrounding forests.

This membership, accompanied by training and brainstorming discussions, has motivated women in Biftu Beri saving group to pay more attention to their natural assets, particularly parts of the Harena forest in which organic coffee plants and indigenous trees grow.

Understanding the importance of such resources to their day-to-day lives, Biftu Beri VSLA group members actively participate in monitoring and protecting the forest. Based on the schedule set by the forest monitoring committee, they patrol the forest and monitor its status. Abiding by the bylaw of the cooperative, any suspicious acts of deforestation, potential risks or real damage are reported to the compartment committee. Mrs Momina Adem Gutu, chair of Biftu Beri VSLA group, explains the contribution of women:

"I could say women in our area are highly attached to the forests around and I believe our contribution to the protection of such resources is way bigger than men. As the responsibility at home requires us to collect firewood, we visit the forests daily; in the mornings and evenings. This has given us a chance to closely monitor and report on the status of the forest."

"Women in our area are highly attached to the forests."

As a result of taking part in awareness enhancing programmes focused on maintaining the environment, Momina and her friends have developed an environmentalist attitude. They teach others to take care of their resources and join cooperatives. They use different monitoring methods to ensure the safety of the forest, as Mrs Momina Adem Sida, Deputy Chair of the participatory forest management cooperative, explains:

"Nowadays, when we have to gather firewood, we purposely go in groups to witness for each other."

Ensuring the safety of the forests through formal and informal communications has been among their biggest concerns despite the challenges and harassment they are facing. Whenever they gather for social events, they seek and exchange information on the wellbeing of the forests. This has been at the centre of communication for the last couple of years.

Momina Adem Sida recounted:

"I remember this day, we received information that a group of eight people had been cutting branches off trees. My friend Momina and myself rushed immediately to the forest without waiting for the other committee members to come. When we got there, most of the men except one escaped without proceeding with their illegal action. Though we asked him to stop, one man refused and proceeded. I was unable to bear the feeling, he was cutting our trees in front of my eyes with me there doing nothing. I couldn't bear that feeling and took action immediately. I held his hands and took away the hatchet from him. My friend Momina helped me chase him out of the forest. I am glad we saved that particular tree." The members of Biftu Beri VSLA group also promote the concept of saving forests by saving firewood.

"These days, in order to reduce pressure on our forests, we have started to use fuel-saving stoves. I could say there are improvements on saving firewood as well. We are not indifferent like the other years wasting energy. We have become careful not to burn a lot of wood for cooking," said Mrs Momina.

The project creates access to fuel-saving stoves by linking members of the community to businesses producing the stoves. To improve affordability for low-income households, the project covers 50 percent of the purchase price of fuel-saving stoves.

HOW FUEL-SAVING STOVES SAVE WOOD, TIME AND HEALTH

Mother of two Etagegegnehu Mulushewa from Goba town in Bale, Ethiopia bears the responsibility of providing for six family members. To make ends meet, she engages in petty trades such as baking and selling the traditional Ethiopian bread injera and fried potatoes, and rearing sheep. Her day starts at 5am with baking injera for her family and customers including restaurants in the town.

Although there is electricity supply in Goba town, the price is unaffordable for her. It's expensive for people like Etagegnehu who are engaged in small businesses. Thus, for years, she had no choice but to use a traditional open smoky stove. In addition to its inefficiency, wasting time and energy, the stove used to risk Etagegnehu's health by exposing her to smoke.

To her relief, Etagegnhu received an improved fuel-saving stove from a nature club supported by Farm Africa and SOS Sahel Ethiopia's REDD+ project to produce and distribute stoves. Etagegnehu compared the two stoves:

"The new stove has multiple benefits. For instance, with the traditional open smoky stove, I had to use more than two quintals [200kg] of firewood to bake 800 injera. But now, with the fuel-saving one, I only need one quintal of firewood for the same amount."

Witnessing the difference in energy used between the two stoves and being concerned about the environmental impact on the forest of traditional stoves, which use so much more firewood, Etagengehu now uses every opportunity to promote the use of energy-saving stoves. She tells others about the advantages of fuel-saving stoves whenever she can.

"I like the fuel-saving stove a lot, it doesn't expose me to excessive heat like the open stove. This one keeps me clean and allows me to do more cooking chores at the same time," said Etagengnehu.

Etagegnehu is encouraged by the take-up of fuel-saving stoves in her neighbourhood. She believes 99 percent of residents are now using the stoves. She plans to upgrade to the more advanced model of fuel-saving stove with a chimney when she can afford it.

"With the traditional open smoky stove, I had to use more than 200kg of firewood to bake 800 injera. Now, with the fuel-saving one, I only need 100kg firewood for the same amount."

Etagegegnehu Mulushewa makes a living selling the Ethiopian staple food, injera.

HOW COFFEE EXPORTS HELP PROTECT THE FOREST

Mr Abdurahman Kule, a chairman of Gutity participatory forest management cooperative (PFMC), has been leading the management of more than 1,932 hectares of forest land, coordinating the 620 members from Angetu kebele. The PFMC, set up with the support of Farm Africa and its partners as part of the REDD+ project in Bale, Ethiopia, ensures members benefit from the forest while also protecting its natural resources.

Abdurahman has become a licensed coffee exporter. Farm Africa connected Abdurahman with the international coffee market; in 2020, he was able to sell 3,660 kg of quality coffee, earning 1.5 million Birr. During this year's coffee harvesting season, he is preparing himself to export a second round of coffee, hiring 20 young people to help him harvest coffee cherries.

Promoting a sense of ownership over the natural environment, the REDD+ project encourages the community to preserve the existing forests and to plant trees. Through discussions and training, the PFMC enables the community to abide by the bylaws set to manage their natural resources.

In 2020, Abdurahman sold 3,660 kg of quality coffee, earning 1.5 million Birr.

"The normal practice in our community used to be clearing the forests to grow maize and plant coffee seedlings," Abdurahman said. "Our main target was harvesting more yields by getting farming land. We used to believe we needed to expand our agriculture to earn more."

However, the REDD+ project made him realise that he could earn a livelihood without having to destroy the natural habitat. "What they taught us was, with clearing trees, the forested land will go barren, exposing the area for severe drought. Instead, we were told to maximise our production by maintaining the natural forest as it is. The knowledge received was cascaded down to the represented community."

According to Abdurahman, the advocacy of forest protection has been well received among the community. "There is a big difference nowadays, our people stopped cutting branches off trees. You can't find a newly deforested land, only the old ones. The awareness of our people has become highly enhanced."

He believes that his PFMC has achieved great success avoiding illegal actions against the forests within Angetu kebele. "Regarding the forests in our kebele, Angetu, I am sure no one cuts down a single tree without getting permission."

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