

Forest Landscape Restoration Program NFG-FLR Program Final Technical Report



Forest Landscape Restoration Program - Amhara

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FINAL TECHNICAL REPORT

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LIST OF ACRONYMS

ADSWE	Amhara Design and Supervision Work Enterprise
AFE	Amhara Forest Enterprise
ANR	Assisted Natural Regeneration
ARARI	Amhara Region Agriculture Research Institute
ΑΤΑ	Amhara Agriculture Transformation Agency
BoA	Bureau of Agriculture
BoFEC	Bureau of Finance and Economic Cooperation in Amhara
C&I	Criteria and indicators
CHSA	Charities and Societies Agency
CRGE	Climate-Resilient Green Economy strategy
DAs	Development Agents
EETM	Environmental Education Training Materials
EFCC	Environment, Forest and Climate Change Commission
EFWPDA	Environment, Forest and Wildlife Development and Protection Authority
FLR	Forest Landscape Restoration
FLR Program	Forest Landscape Restoration Program
FTC	Farmer Training Centre
GLI	Green Legacy Initiative
LLW	Lessons learned Workshop
LUP	Land Use Planning
MRV	Monitoring Reporting and Verification
NFSDP	National Forest Sector Development Program
ΟοΑ	Office of Agriculture
ORDA	Organization for Rehabilitation and Development in Amhara
RF	Results Framework
RIP	REDD+ Investment Program
RNE	Royal Norwegian Embassy in Addis Ababa
SC	Steering Committee
WATVET	Woreta Agricultural Technical Vocational Education and Training College

EXECUTIVE SUMMARY

The present NFG-FLR Program final report describes, systematizes and highlights the main information, activities and results related to the planning and implementing process during the whole program period, i.e. November 2017-April 2022.

NFG-FLR Program stages of the working process

The report starts with the illustration of the program's working process through describing the stages and the elements of the main program period, i.e. November 2017-December 2020, which was characterized by a long inception phase of 8 months, from November 2017 to July 2018. During this phase the FLR Program managed to put together elemental organizational, administrative and management tasks necessary to launch the planning and the implementing process and procedures, notably the assessment of the context, the refining of the program's objectives, the adjustments of the targeted results, i.e. the Result Framework (RF), the organization and the promotion of cooperation and partnership with the key local stakeholders and partners as well as the establishment of the Program's Management Unit (PMU) in Bahir Dar, Amhara region. This period was also an opportunity to initiate and promote the NFG registration process in Ethiopia.

Then, the report calls attention to the program's overall objective, the specific objectives and the planned activities to achieve these objectives. At this part, the report also underlined the relevance of the program for the local context, highlighted the program's intervention areas for the forest landscape restoration activities as well as the specific criteria for their selection.

Moreover, the report highlights several limiting factors, notably COVID-19 Pandemic and conflicts in Amhara region that have hampered the progress of the work and restricted the realization of some of the outcomes and outputs that should have been achieved during the program's main period. Such unexpected circumstances have obliged NFG to apply for no cost extension periods to accomplish all the objectives planned in the program's RF.

NFG-FLR Program approach and its guiding principles

The program's approach and its guiding principles is one the important components described thoroughly in the report. This starts with underlining that the foundation for FLR Program restoration interventions is the "landscape approach" which refers to a set of concepts, tools and methods applied in landscapes through integrating natural resources management with environmental and livelihood considerations. Here the NFG-FLR Program pointed out its perception regarding the need to take into consideration the specificities of the context of degraded areas in the highlands of Amhara and the integration of the experiences and lessons learned not only in Ethiopia but also in other contexts with similar forest landscape restoration issues. Knowing the immediate causes of forest landscapes degradation in Amhara, i.e.: interrelated human activities, management and natural factors, the NFG-FLR Program adopted, adapted and implemented interventions that reduce land degradation (Ecological aspect), improve livelihood of the local people and communities (Socio-economic aspect) and thereby promote forest landscape restoration in the program areas (Management aspect).

Such approach was guided by key principles such as active participation and diversification of the local stakeholders, realistic objectives and relevant interventions, provision of targeted incentives for the main target groups, involvement and promotion of gender issue to generate broader local adhesion, enhance capacities, incentivize both women and men to contribute to restoration efforts and provide livelihood and wellbeing opportunities and develop the sense of ownership among the target groups through implementing and promoting impact tangible interventions.

To this end, the program practical approach was based on interventions that took place in given areas located mainly in South Gondar, West Gojam and Awe zones, and covering 11 Woredas proposed by the local stakeholders. Most of the intervention areas are selected in a way to be in the same cluster.

As to the NFG-FLR Program "Model" to Forest Landscape Restoration in these degraded areas, it is mainly based on a combination of 2 complementary restoration methods, the small scale and the large scale restoration; i.e.:

- Tree-based restoration of degraded forest landscapes through establishing Green Villages. The developed FLR-Based Land Use Plans (LUPs) are the basis for this restoration method.
- Restoration of degraded forest landscape through establishing enclosure areas. This method also applied by governmental programs (REDD+) consists in identifying, mapping and developing bylaws of enclosure areas, and it is considered to be an important step towards large scale restoration of the degraded forest landscapes in the Amhara region.

NFG-FLR Program main achieved results

A summing up of the program's main achieved results, organizational, administrative and technical is presented in a logical sequence, following the structure of the program's RF. It also underlines that all the activities targeted in the program's RF are accomplished and some of the results are even exceeding the planned targets. The achieved results can be systemized in the following points:

- **Mapping and planning of areas suitable for restoration.** The scale of identifying and mapping has been conducted in a short period and exceeds what has been done in Amhara region so far.
- The follow-up of enclosure-based restoration activities. This activity is launched and promoted by FLR Program in some areas through involving the key local stakeholder, i.e. Offices of Agriculture.
- **Restoration at Village Level: The Green Village Concept.** This concept combining tree-based restoration and socioeconomic incentives is adopted, adapted and promoted by FLR Program as a practical approach to landscape restoration, which is a new and innovative practice in the highlands of Amhara region.

- Planting activities. The rationale behind the planting activities established by FLR Program goes beyond reducing the degradation of some of the intervention areas and providing the local population with more access to firewood and construction materials. The aim is also to introduce a new way of acting based on the notion of "integration" and "diversification", not only in terms of the type of plantations (Woodlots, agro-forestry, trees on farm, etc.) but also in terms of the diversification of species.
- Training courses and materials for farmers. The approach applied by the program may improve the substance and the conduction of demand-driven and FLR-Based practical courses, in field conditions. As to the training materials, there is a lack of appropriate materials for the farmers and the program has developed several appropriate materials that would provide the farmers, men and women, with basic and practical knowledge to improve and promote innovative and appropriate land use practices. Furthermore, the environmental education training materials developed for school children would capacitate the young generation with useful knowledge and practices about environment. Such program has not been conducted by other FLR programs in Amhara before.

Main findings and conclusions of the MTR of the FLR Program

The report points up the main findings and conclusions of the MTR of the FLR Program realized by end 2020. The findings and conclusions are related to the program's relevance, the strategy, the implementing methodology, the results achieved, and the progress made. The MTR attributed the efficiency and the effectiveness of the program's implementation to the participatory approach applied throughout the different stages of the working process, to the applied approaches and to the introduced practices and the complementarity between the activities. Also, the MTR underlined that many program's achievements and indicators give expectations for scaling-up the FLR Program outcomes what requires a second phase to insure tangible impact and sustainability of forest landscape restoration in Amhara region.

Conclusion

The report concludes with some aspects related to the sustainability of the program interventions and also the main lessons learned.

• Sustainability of the achieved results

Concerning the elements introduced and applied by the program and which would contribute to the sustainability of the program activities, the report call attention to the following aspects:

- Approaches and methods applied by the program which are based the promotion of close and active multi-stakeholders partnership and participation at different stages of the working process.

- Restoration activities at village level through the application of the Green Village concept, based on a combination of tree-based restoration activities, socio-economic incentives and also establishment, maintenance and rehabilitation of basic facilities and infrastructures that allowed an active mobilization of the local people who demonstrated willingness and enthusiasm to participate and take self-initiatives to promote such activities.
- Objective behind the promotion of the tree planting activities which goes beyond reducing the degradation and providing the local population with better access to firewood and wood materials, but also to introduce a new way of thinking and acting based on "integration" and "diversification" in terms of the type of planting activities (Woodlots, agro-forestry, trees on farm, etc.) but also in terms of producing quality planting materials and diversification of tree species, exotic and indigenous.
- Capacity building and training activities through the combination of demand-driven topics and the introduction of relevant practices and demonstration activities which are not only FLRbased but also related to the awareness rising, improvement of attitude, promotion of practical knowledge, skills and self-initiative in terms of forest and land use practices, diversification of sources for livelihoods as well as improvement of the living environment.
- Promotion of the participation of the rural women through underlining and emphasizing the role that can be played by women in facing the degradation and improving the livelihoods. The program involved rural women as a target group and direct beneficiaries of the FLR Program activities.

• The lessons learned

The lessons learned represent experiences, knowledge, insights and understanding gained during the program period and involves both positive and negative aspects at different levels and stages of the working process.

These experiences can be valuable for current and future programs and needs to be documented. This information should be valuable for stakeholders that should continue working with landscape restoration in Amhara after the FLR Project has been finalized. Based on this, NFG's FLR program keeps learning from and build upon previous and ongoing restoration initiatives and establish cooperation with relevant stakeholders at national, regional and local level to ensure successful project implementation, local ownership and sustainability.

The program has planned to arrange a Lessons Learned Workshop (LLW) involving all the key stakeholders and partners to identify and document experiences, Successful and challenging, achieved or encountered during the program's working process in order to increase the probability of future project success. This important event was planned to be held at the end of the program period; unfortunately this workshop had to be postponed for the beginning of the FLR Program Phase 2, due to the unavailability of some key stakeholders, i.e. Woredas' Office of Agriculture (OoA).

The following points will be considered as the substance of this LLW, i.e.:

- Huge needs for FLR in Amhara. This requires efficient joint action to build up a strong platform for partnership and cooperation involving all the key actors and decision makers in the sphere of FLR, at different levels (Government, NGOs, International Organizations, etc.). Different aspects could be a basis for such joint actions and some suggestions based on FLR Program experience and recurrent discussions with different Key stakeholders and partners at local level are already specified, i.e.:
 - (i) Systematization of the Information and data related to FLR interventions achieved so far. The information and data regarding this important component of FLR would allow checking the progress made, make adjustments, promote and plan accordingly.
 - (ii) Participatory Enclosure Management (PEM), i.e. Clarify and develop a simple substance and structure of FLR-Based PEM which is not only based on the needs and perceptions of the farmers and communities, but also on relevant expertise and practices related to FLR.
 - (iii) Restoration at Village Level. The concept of the Green villages introduced by FLR Program is one of the key elements. This concept and its substance should be promoted and improved through joint action with different actors acting in the field of FLR in Ethiopia.
 - (iv) User rights for the farmers affected by the restrictions or the benefits related to the management of enclosures. The user rights regarding enclosures are a prerequisite for FLR interventions sustainability. Therefore, the status and the procedures related to this important issue need to be clarified.

• Scaling up of impact tangible and efficient practices and activities to other areas

The FLR program has initiated some relevant planning and implementing approaches, practices and activities related to forest landscape restoration in the highlands of Amhara region. Despite the constraints and challenges faced, the FLR Program has achieved tangible results which are needed, appreciated and demanded by the local stakeholders, notably by the main program's target group in the degraded areas, i.e. farmers and communities. To insure that these results will lead to long-term impact and sustainability it is very important not only to improve and promote them in the same areas but scale up them to similar and other contexts through adapting the methodologies and interventions.

INTRODUCTION

The concept of forest land degradation

Forest degradation is a critical problem worldwide. It is defined as a loss or a reduction of the capacity of the forest to provide goods and services (Ecological, socio-economic, cultural values, etc.). This may be caused by natural factors, human-induced factors, direct and indirect, or a combination of both.

Although the causes and the drivers contributing to the degradation and the depletion of forest resources vary from region to region, the definition of degraded forests is generally associated to deforestation, to the conversion of forests to intensive agriculture lands and to uncontrolled and overgrazing systems.

However, defining degraded areas are not an easy task, particularly since the local stakeholders in each context can have different views, contrasting needs and interests of what degradation is. When it comes to the realities in the ground, it is often the perceptions of some influential stakeholders that define forest landscape degradation and identify areas suitable for restoration. This is a limiting factor, notably because it doesn't take into consideration the whole aspect of the problem, and, in some cases, neglects the real priorities.

To avoid such constraints it's important that the assessment of the forest land degradation should involve all the key stakeholders, notably those who are directly affected by this problem, i.e. local people and communities. The assessment should be based on a set of Criteria and Indicators (C&I) integrating and illustrating the key functions and the values provided by the targeted forest landscape and the real causes, drivers and impacts of the degradation. This approach will allow achieving a "consensus" on the identified degraded forest landscapes and avoiding any conflict situations during the restoration process.

The Bonn Challenge: A milestone towards promoting Forest Landscape Restoration

While Forest Landscape Restoration (FLR) is by no means a new idea, it has received unprecedented global attention in recent years. In 2011, the international community launched the Bonn Challenge to restore 150 million ha of deforested and degraded lands by 2020 and 350 million ha by 2030. This was extended by the "New York Declaration on Forests" in 2014. These initiatives are considered to be the milestone towards initiating and promoting concrete restoration measures to face forest land degradation. Today, the Bonn Challenge process serves as a platform for discussing concrete actions and cooperation to promote and facilitate the implementation of Forest Landscape Restoration worldwide.

Achieving the Bonn Challenge's global goal would result in carbon sequestration as well as reversing forest landscape degradation. However, the benefits of implementing the restoration actions go beyond the above mentioned results because FLR should also help to improve the productivity and the resilience of the forest landscapes, through promoting sustainable land use, improving the biodiversity, providing environmental and socioeconomic services and enhancing measures enabling to improve the livelihood and food security of the local people and communities.

Accordingly, the appropriate restoration strategies, objectives and actions should integrate not only the global and national goals but also the local social, economic and ecological contexts and needs where the forest land degradation is particularly severe and further compromising or constraining the livelihoods of poor people, who depend mainly on natural resources.

Forest Landscape Restoration Approach: Basic guiding principles

FLR is commonly understood as "a planned process that aims to regain ecological integrity and enhance wellbeing in deforested and degraded landscapes".

Promoting the potential of FLR to achieve both environmental and social outcomes relies significantly on the support, contributions and cooperation of the concerned stakeholders, in particular, on those who depend on the landscapes for their livelihoods, and whose rights and interests must be safeguarded and promoted for restoration to be sustainable. Thus, FLR is referring to an integrated approach, taking into consideration all the aspects constrained and/or compromised by the degradation of forest landscapes, i.e. ecological, socioeconomic, management, forest and land use practices. The FLR approach is based on active participatory planning, implementing and decision-making processes, involving all the key stakeholders in the degraded forest landscapes.

• Restoration Need Assessment: The basis of FLR planning and implementing process

The restoration need assessment is a fundamental task that should be accomplished in the earlier stage of the forest landscape restoration planning process. This is important to specify and categorize root causes of degradation and prioritize restoration needs, and thereby identify appropriate restoration methods to achieve the planned objectives. It also allows specifying the responsibilities in terms of follow up and sustainability of the implemented interventions and activities.

• Forest Landscape Restoration: A wide range of interventions at different scales (Area and time)

FLR does not call just for increasing tree cover on what would be ecologically appropriate for a particular area or context, it should result in a variety of land uses, ranging from forest areas and their buffer zones, to mosaic-restoration based on wooded areas amid villages and agricultural fields, as well to agro-silvo-pastoral systems, i.e. land-use systems, implying the association of woody components (trees) with agriculture and grazing systems.

Thus, based on the context, on the expectations and the perceptions of the local key stakeholders, the planning of realistic interventions is a key element for productive and efficient FLR results. Here, the sense of realism means the need to get more focus on reducing the causes of degradation rather than trying to eradicate the effects of degradation.

Generally, the degraded landscapes are encountering multi aspects problems and challenges which are often aggravated by a multitude of contrasting, contradictory and even conflicting needs and interests. Therefore, solutions to problems need to be built on trust and synergies between the key local stakeholders. Such trust could emerge when FLR-based objectives and values are clarified and shared, and the results of "some" of the restoration activities are impact tangible within a short term period.

In this perspective, it's very important to identify and combine complementary FLR-based interventions which can address not only "extensive objectives" that require more time and efforts to achieve substantial results, but also "simple objectives" capable to provide prompt results.

Furthermore, FLR-based interventions are not bringing just helpful impacts; they may also create constraints, particularly for the farmers and communities who are directly affected by the restoration interventions, and who are already facing difficult environmental and socio-economic conditions.

Accordingly, the FLR-based interventions should be accompanied by well-toughed and targeted incentives. The incentives should be designed and organized in a way to do not undermine the self-initiative of the local people, but in a way to influence constructively their behavior towards improving their livelihood while restoring and protecting the forest landscape. To this end, it's important to develop and structure a practical FLR incentive schemes and organize the local farmers in user groups in order to broaden the impact, make it more perceptible for scaling up.

NFG-FLR Program background

• The Context

Land and forest resources in Ethiopia are facing intense degradation due to natural and anthropogenic factors such as soil erosion, deforestation, agricultural land expansion, poor agricultural practices and overgrazing. Underlying drivers for this degradation include also weak regulatory context and institutions, demographic growth, unclear user rights to land, low empowerment of local communities, and poverty.

Since the country's development is totally dependent on its land resources, the loss of productivity due to degradation has serious implication on social and economic development. As it is indicated in many research works, land degradation in Ethiopia is highly affecting the livelihood of the rural people which represent the majority of the population, and with the continued growth of the population, this would probably be even more sever in the future.

Land degradation is particularly more visible and severe in the highlands where steep slopes are over-cultivated and are subject to serious soil erosion.

The problem is more prominent and has been extensive for many decades in Amhara region because of intense population density and greatest livestock concentration. Natural factors coupled with the effects of a poor farming methods and increasing population pressure force people to cultivate even steeper slopes, and to shift cropping and grazing activities to hillsides and ecologically fragile areas. This has aggravated the devastating land and resource degradation in the region.

Deforestation is also severe and has a long history in Amhara region where subsistence farming and settlements have been changing landscapes. Deforestation was always followed by a change in land use and land cover, from forest to grassland and cropland. Thousands of hectares of forest are harvested annually in the region for fuel wood, logging and construction purpose.

Ethiopia's strategies and actions to face forest land degradation

The Ethiopian Government acknowledges that, if left unhampered, land and forest degradation will pose a critical threat to land and livelihoods. To this end, policies, strategies, proclamations, programs, and plans have been developed to safeguard the country's forests, and to directly or indirectly address the conservation and development of forest resources and landscape restoration interventions. The Climate-Resilient Green Economy strategy (CRGE) launched in 2011 is one of lines of attack towards promoting these objectives. Agriculture and forestry are two of the four pillars of this strategy along with energy and technology. It clearly sets out environmental and development objectives for forestry and agriculture sectors. In the same course of action, Ethiopia has joined the AFR100 Initiative which contributing to the Bonn Challenge, and pledging to restore 15 million hectares by 2030. To turn this ambitious development goal into reality, protecting existing forests and restoring degraded areas is crucial. This is where the Forest Landscape Restoration approach comes into action.

• NFG-FLR Program implementation stages

The NFG Forest Landscape Restoration Program in Amhara has been implemented by NFG and local partners since the signing of the grant agreement with the Royal Norwegian Embassy in Addis Ababa (RNE) in November 2017. The Government of Norway has committed NOK 51 million (USD 6 million) for supporting the implementation of the FLR Program until 2020. The FLR Program started in November 2017 and ended in April 2022. The program's working process passed through the following main stages:

Main program period, i.e. November 2017-December 2020. This period was characterized by long inception phase, i.e. 8 months, from November 2017 to July 2018. During the inception phase the program arranged all the basic organizational, administrative and management tasks necessary to launch the planning and the implementing process of the program such as assessment of the context, refining and adjusting the program's objectives and the targeted results, organization and promotion of cooperation and partnership with the local stakeholders, NFG registration procedures.

Several restrictive factors such as administrative and organizational procedures, COVID-19 Pandemic restrictions and conflict events in Amhara region have hampered the working progress of the FLR Program and constrained the achievement and realization of some of the outcomes and outputs targeted in the program's RF that should have been achieved during the main program's period.

First and second no cost extension periods, i.e. January-December 2021 and January-April 2022. The FLR Program has applied to RNE for the 2 no cost extension periods to accomplish the program's objectives and activities that have been hampered by the above mentioned unexpected constraints and restrictions, notably COVID-19 pandemic and conflicts in Amhara, Region.

• NFG-FLR Program objective and activities

The overall FLR Program objective is to achieve restoration and more sustainable and productive use of targeted forest landscapes in Amhara region.

The specific objectives of the program are based on land degradation problems, particularly in the highland context in Amhara which have resulted in severe land degradation such as unsustainable land use practices, deforestation, overgrazing and inappropriate agricultural practices. Thus, the program has intended to reduce land degradation by implementing and promoting appropriate FLR interventions and land-use management and practices relevant to degraded areas in the highlands of Amhara region and which could be scaled up to similar contexts on other region of the country.

To achieve this goal, the program planned five complementary Work Packages (WPs), i.e.:

- ✓ WP 1. Land Use planning with local community involvement.
- ✓ WP 2. Tree Nurseries with high quality planting materials.
- ✓ WP 3. Landscape Restoration at the Village level through assisted natural regeneration, restoration and enrichment plantings.
- WP 4. Landscape restoration in the context of commercial forest plantations.
- ✓ WP 5. Capacity building and Training.

• Relevance of the FLR Program for the local context

The FLR program is relevant and consistent with the priorities for Ethiopian forestry development and conservation programs. It contributes to meet the country's policies and commitments related to forest land restoration, such as Bonn Challenge, New York Declaration and AFR100 Initiative. The program is also well in line with The National REDD+ Strategy and the related national and regional REDD+ programs which are predicted to contribute to the achievement of the CRGE and Green Legacy Initiative (GLI) through improved management of existing natural forests and expansion of forest areas. The FLR program is coherent with the National Forest Sector Development Program (NFSDP), which is following an accelerated growth pathway, aiming to achieve broad-based and sustainable economic growth to reduce poverty and become a middle-income country by 2025. Furthermore, the program is highly relevant for NICFI goals especially those related to sustainable land use, as well as the REDD+ Partnership agreement signed between Norway and Ethiopia in 2013.

• FLR Program intervention Woredas

The initial process of selecting Woredas for the FLR Program was done by local partners and stakeholders, notably Amhara Bureau of Agriculture (BoA), Amhara Agriculture Transformation Agency (ATA), Amhara Forest Enterprise (AFE) and ORDA. This work was done in 2016 as part of the development of the program proposal. At that stage, the focus area was supposed to cover 15 Woredas in Amhara region. During the program's inception phase, NFG team together with the local partners have assessed the realities in the ground, the difficulties and the challenges that the program could face by intervening in such large focus area. This joint work with the local partners and stakeholders allowed getting a consensus about the necessity to reduce the number of the Woredas to achieve more impact tangible results. The rationale behind this decision is that the spread of the FLR Program interventions and the dispersing of efforts and resources in such huge territory can be a real limiting factor towards achieving the program's objectives.

Based on this, it was agreed with the key local partners to reduce the number of Woredas from 15 to 8. However, after signing the agreement with Bureau of Finance and Economic Cooperation in

Amhara (BoFEC), the NFG-FLR Program has also included 3 more Woredas located in Adama-Chokie Mountain area, requested bv BoFEC. The 11 Woredas are selected in а way to be neighboring, i.e.:

- South Gondar Zone: Ebinat, Farta and Libokemkem Woredas.
- West Gojam Zone: Quarit, Y.
 Densa, Mecha and Sekala
 Woredas.
- East Gojam Zone: Sinan, Bibugn and Debaytilatgin Woredas proposed by BoFEC.
- Awe Zone: Guangua Woreda.



• Definition/Identification of the FLR Program intervention areas

Assessing the condition of forest landscapes and defining degraded areas where appropriate and realistic restoration interventions should be implemented are not an easy task, particularly since the local stakeholders have contrasting needs, interests and different views of what degradation is.

To this end, the FLR Program has involved local communities and the concerned stakeholders to make sure that any selected area has to be based on a consensus. For this purpose, a set of criteria have been elaborated, based on the real drivers and impacts of the degradation, the feasibility of the interventions and the achievement of tangible and effective results.

Criteria for the selection of the FLR Program intervention areas

- ✓ Severity of land degradation in the areas.
- ✓ Areas with remaining forests relevant for REDD+ interventions.
- ✓ Diversity and importance of land-use features and their obvious impact on land degradation.
- ✓ Potential for integrated FLR interventions.
- ✓ Possibilities for Woreda's cross border FLR interventions.
- ✓ Potential for big scale restoration intervention, notably area enclosures.
- ✓ Potential for community-based and livelihood-based development interventions.
- ✓ Suitability for developing demonstration activities.
- ✓ Capacity of the area for prompt improvement within a short/midterm period.
- ✓ Accessibility for intervention, supervision and monitoring.

The following table illustrates in detail the zones, the Woredas and the Kebeles where the FLR Program has intervened.

Zones	Woredas	Kebeles	Remark
South Gondar	Ebinat	Serawdi Amstya Mechena Zeha Jiman Deregha Gunaguna Embachiko	Kebeles where a combination of FLR planned activities, by Work Package are implemented, Including LUPs, tree nurseries, planting and training activities

Table 1. FLR Program Intervention areas: Woredas and Kebeles

South Gondar	Libokemkem	Taragedam Agela Astamariam Shihich Shamo Birkute Libo	
	Farta	Medebgubda Jarashikra Ayvaniva Kolay Dengors Teraroch Buro	Kebeles where a combination of FLR planned activities by Work Package are implemented, including LUPs, tree nurseries, planting and training activities
	Quarit	Chefakit Fengeta Endryas	
West Gojam Yilmana Densa		Aybar Semarega Yizoradabal	
	South Mecha	Goshmeda	
	Sekela	Lijambera	
	Debay tilatgin		
East Gojam Dega Damot Sinan		Most of the Kebeles in these Woredas are included	Woredas where only enclosures are identified, mapped and bylaws
			developed
	Bibugn		
Awe Zone	Guangua	Guangua	LUP developed

CHAPTER 1: FLR PROGRAM WORKING PROCESS

1.1 The Inception Phase: A key stage for efficient planning and implementation of the program

The program inception phase was planned for 8 months, i.e. November 2017 to July 2018. Most of the basic organizational and management tasks necessary to launch the planning and the implementing process of FLR Program were organized and established during this phase, i.e.:

1.1.1 The assessment of the local context

The assessment of the context has focused mainly on 2 aspects, i.e.: selection of appropriate interventions areas and type of forest landscape restoration interventions.

• Selection of appropriate intervention areas

All FLR Program restoration interventions are planned and implemented within a degraded forest landscape areas. One of the key concerns in the program's planning process is the identification of appropriate sites for restoration interventions, there where the program can foresee obvious and effective results.

During the inception phase, the program staff jointly with the local stakeholders and partners (Bureau of Agriculture; Environment, Forest and Wildlife Development and Protection Authority; the Amhara Forest Enterprise; Amhara Transformation Agency; ORDA, etc.) have assessed the condition of forest landscapes and defined degraded areas were restoration interventions should be implemented. To make sure that the selected areas for the restoration interventions are based on a consensus, the program has also involved stakeholders at Woreda and Kebele level (Offices of Agriculture, local farmers and communities). This process was concluded by developing a set of criteria for selecting intervention areas, based on tangible impacts of forest land degradation, the feasibility of the interventions and the achievement of obvious and effective results.

• Type of forest landscape restoration interventions

Amhara region holds considerable potential for FLR, as vast areas of land are in different stages of degradation, notably in the highlands. The FLR Program iterative discussion process with the local stakeholders about the definition of suitable type of forest landscape restoration interventions has resulted in the necessity to combine "Mosaic Restoration" which is more relevant in forest landscapes with a diversity of land uses, near settlements and "Large-scale restoration" which is more appropriate in areas where there the consistency of land-use activities is relatively low (Grazing areas).

There's a wide range and a variety of activities related to each type of FLR interventions. Some of them are aligned with FLR Program objectives and were considered by the program, i.e.:

- Afforestation/Reforestation in deforested/degraded lands not suitable for agriculture such as wasteland and steep slopes. Here, the main restoration option is tree planting using diverse species, in particular fast growing varieties, to increase wood supply and improve incomes of households and communities.
- Assisted Natural Regeneration notably in enclosures.
- **Tree growing** through establishing woodlots and plantations with multi-purpose tree species such as agro-forestry, fruit trees, firewood and fodder trees, trees on farm, etc.

The FLR Program has prioritized restoration interventions to be undertaken. The focus was on integrating most of the program's WPs in the targeted areas. The precedence was given to interventions in line with the program's objectives. Some of demand-driven activities are also included. All interventions respond to cost effectiveness and feasibility criteria.

1.1.2 Refining/Adjusting the program's objectives and the targeted results

The FLR Program RF was slightly adjusted during the Inception Period. The small changes were made notably because the year 2017 and 2018 has been merged and the situation with a late start in 2017 and a quite long inception period with a number of organizational and administrative issues to be settled. The volume of tasks related to the output in the different WPs has not been reduced. However, the volume of some activities has been decreased in 2017/2018 but increased in 2019 and 2020.

The level of expected increase in production and level of income of targeted households in the program interventions areas have been reduced due to the shorter program period. The adjusted RF was discussed with RNE and was approved.

1.1.3 Organizational issues

• NFG Registration in Ethiopia

In February 2009 the Ethiopian parliament passed into law the Charities and Societies Proclamation (CSP) No.621/2009. The law places strict administrative restrictions on the work of Non-Governmental Organisations (NGOs) in the country. Subsequently, to operate legally in Ethiopia, NFG has applied to get a formal registration. The formalities related to the registration process and procedures were time-consuming and took more than 11 months. NFG got the Registration Certificate on 15th November 2018.

The NFG registration process was followed by other administrative formalities which were also time consuming, i.e. signing agreement with BoFEC. The agreement with BoFEC was signed in September 2019, almost 10 months after being registered.

• Agreements with the local co-implementing partners

During the early stage of the inception phase, the FLR Program has signed agreements with 2 local organizations, i.e.: Organisation for Rehabilitation and Development in Amhara (ORDA) and Amhara Forest Enterprise (AFE). ORDA and AFE have already been cooperating with NFG, notably in developing the FLR Program proposal. Memos of Understanding (MoU) formalising the cooperation between NFG and the respective organisations were already signed in February 2017. The signed agreements serve as a framework for ORDA and AFE to act as program's co-implementing partners.

In terms of articles and regulations, the agreements specify and describe comprehensively services that will be delivered by the co-implementing partner, in accordance to activities described in FLR Program WPs. The agreements also point to the obligation of acting in line with MFA and RNE Grant Management Regime, specified in grant agreement between MFA and NFG, i.e.: specific conditions; general conditions and procurement provisions.

• Strengthening cooperation and partnership with the local key stakeholders

The program's inception phase was an opportunity to identify the key local stakeholders and partners at regional, Woreda and Kebele levels and also define and clarify their roles and tasks in the program. This process passed through several consultations, informative meetings and signing of MoUs etc.

The following table illustrates the program's main stakeholders, their role and the level of their involvement in the program's implementation as well as the expected FLR Program effect on their activities and performances.

Main Local stakeholders	Role and level of interest	Participation in FLR Program design	Expected FLR Program effect on stakeholders' activities/performances	
	Governmental Organi	zations (GO)		
Environment, Forest and Climate Change Commission (EFCCC)	 Advisory and supervision role. High interest because of EFCCC role and mission for the development of the sector 	 Participated. EFCCC was consulted and evaluated the program proposal. 	 Could use program results and lessons learned to strengthen its work on rehabilitation of degraded lands in the country. Strengthened collaboration with NFG. 	
Bureau of Agriculture (BoA)	 Advisory, supervision role. It has also an implementing role through its representations at Woreda level, i.e. Offices of Agriculture (OoA) with which the program has signed agreements to implement specific activities in the program's intervention areas, mainly production of quality and quantity planting materials necessary for the program's planting activities and also the strengthening of tree nurseries. 	 Participated. BoA was consulted and provided key information and recommendations notably related to the selection of the program areas. 	 Could use program results and lessons learned to strengthen its work on rehabilitation of degraded lands in the region. 	

(BoA)	 High interest because of BoA role and mission for the development of the sector. 		
Environment, Forest and Wildlife Protection and Development Authority (EFWPDA)	 Advisory and supervision role. High interest because of EFWPDA role and mission for the development of the sector in Amhara region. 	 Participated. EFWPDA was consulted and provided key information and recommendations notably the selection of the program's areas. 	 Could use program results and lessons learned to strengthen its work on rehabilitation of degraded lands in the region.
Regional REDD+ Coordination Unit	 Advisory role. Share of experience. High interest because similar activities are implemented by RIP. 	 Participated. REDD+ was consulted and shared key information notably about restoration activities. 	Could use program results and lessons learned to strengthen its work on rehabilitation of degraded lands in the region.
Sustainable Land Management Program (SLMP)	 Share of experience. High interest because similar activities are implemented by the program. 	• No.	Could use program results and lessons learned to strengthen its work on rehabilitation of degraded lands in the region.
	Non Governmental Orga	nizations (NGOs)	
Organization for Rehabilitation and Development in Amhara (ORDA)	 Main co-implementing partner; involved in almost all the program activities. Coordination role. 	 Participated. ORDA was consulted and provided key 	Could use program results and lessons learned to strengthen its work
	 High interest because of ORDA's role and mission in implementing rural development and NRM based activities. 	 information and recommendations related to all aspects of the program proposal. Key role in logistics. 	on rehabilitation of degraded lands in the region.

Amhara Region Business Oriented Organizations							
Amhara Forest Enterprise (AFE)	 Main co implementing partner; particularly involved in planting activities. High interest because of AFE's role and mission in the forestry sector. 	 Participated. AFE was consulted and provided key information and recommendations, notably those related to forestry aspects. 	 Could use program results and lessons learned to strengthen its work on rehabilitation of degraded lands in the region. 				
Amhara Design Supervision Work Enterprise (ADSWE)	 Implementing recommended by EFCCC, having as a main task the identification, mapping and development of bylaws of enclosures in the program areas. High interest because of ADSWE's role and mission, notably in land use planning. 	• No.	 Could use the lessons learned to implement in other parts of the region. 				
	Scientific/Education/Voc	ational Training					
Amhara Region Agricultural Research Institute (ARARI)	 Implementing partner having as a main task the realization of demonstration sites/agricultures practices relevant for the highland context. High interest because of AARI role and mission related to the development of the agriculture sector notably through promoting innovative and relevant land use practices. 	• No.	 Can be able to use program results and lessons learned in strengthening their research and education. 				
Woreta Agricultural Technical Vocational Education College (ATVET)	 Implementing partner having as a main task the development of training materials, training activities for the farmers, Training of trainers (ToT). 	• No.	 Can be able to use program results and lessons learned in strengthening their training activities and training 				

• Establishment of FLR Program Steering Committee

As stipulated in the FLR Program project document, a Steering Committee (SC) has been established during the inception phase.

The developed SC mandate illustrates the scope of work and specific tasks of the SC which mainly concern the guiding and advisory role to the program's team in order to accomplish sound and effective implementation of the program's activities and achieve the planned objectives.

The FLR Program SC is composed from 8 members, 3 of them are women.

	FLR Program Steering Committee Members
1.	Mr. Soren Moestrup, PASTPO/Copenhagen University, Chair of the SC.
2.	Mr. Markos Wonde, Deputy Head for natural resources, Bureau of Agriculture (BoA), Amhara.
3.	Mr. Belayneh Ayele, Environment, Forest and Wildlife Development and Protection Authority (EFWDPA), Amhara.
4.	Mr. Mulugeta Yimam, Head of Ebinat Woreda, Amhara region.
5.	Mr. Sintayehu Deresse, Regional Coordinator REDD+, (EFWDPA), Amhara.
6.	Ms. Titkensh Alemu, Amhara Women Association (AWA).
7.	Ms. Banchamlak Mola, Forestry expert, BoA, Amhara.
8.	Ms. Fikirte Demissie, University of Bahir Dar.

1.1.4 Review and development of some technical and organizational procedures necessary for the planning and implementing process

• Land Use Planning (LUP)

LUP is the basic component for FLR Program interventions. The conventional LUP method conducted in Amhara has its focus on agriculture and cultivated areas.

The inception phase was an opportunity to revise and refine this method and adapt it for Forest Landscape Restoration.

To this end, FLR Program has developed the FLR-Based LUP methodology structured based on a sequence of activities showing the process and the procedures towards defining and implementing targeted restoration interventions in degraded Forest Landscapes. The FLR-Based LUP methodology is the result of integrating multiple practices and point of views of NFG team and key local stakeholders/partners.

The developed methodology is illustrating, in precise, clear and simple manner, the substance and the logical sequence of developing and presenting FLR-Based information and data relevant for the planning and implementing process.

Routines for financial management

The NFG staff has developed routines for financial management based on RNE-Grant Management Regime.

The main components of the routines are illustrated in the following drawing. The document describing the routines is annexed to the present report.



The main constituents of the FLR Program financial management routines

• Communication Strategy

The program has developed basics for its communication strategy to meet the goals of the program and build awareness. This started by informing the key stakeholders about the key components of the working process and endorsing their participation through organizing meetings and working sessions at different levels. This was followed by launching of FLR Program Web Site and also the development of the structure of periodic "Newsletters" which report the main activities, facts and events happening during specific periods of the working process.

Organization of the Program's Management Unit (PMU)

The PMU was organized in Bahir Dar, Amhara Region. The FLR Program Office is located near by the Headquarter of the main co-implementing partners, i.e. ORDA. The office has sufficient working space to accommodate local staff and also NFG specialists during their missions and hold working sessions and meetings with the local stakeholders.

The program has engaged local staff/specialists through the co-implementing partners, i.e. ORDA and AFE. The PMU operational structure is developed in a way to allow to the program to act in flexible and efficient manner.

The following drawings illustrate the main elements composing the PMU operational structure and schematize how all interventions are built on active participatory process in each step of the working process.



1.2 The no cost extension periods (Year 2021 and January-April 2022)

1.2.1 The 1st no cost extension period (January-December 2021)

Several restrictive factors have hampered the progress of NFG-FLR Program's working process and constrained the realization of some of the outcomes and outputs targeted in the Result Framework and that should have been achieved during the program's main period, i.e. November 2017-December 2020.

To fulfill the planned outcomes, NFG has applied for a one year no cost extension period, January-December 2021. The application was formally submitted to RNE on the 14th October 2020, and approved on the 28th December 2020. The main arguments advanced by the program are:

- Administrative and organizational issues.
- Technical issues related to the planning and implementing process.
- COVID-19 Pandemic restrictions.

The 1st no cost extension period allowed fulfilling of most of the FLR Program's remaining and/or unachieved tasks and activities. It was also an opportunity to launch the process of structuring, developing and refining all documents and deliverables related to the program achievements in accordance with the targets planned in the program's RF.

1.2.2 The 2nd no cost extension period (January-April 2022)

Due to the availability of some unused funds by end of 2021, and to insure the continuity between the FLR Program phase 1 and 2, keep operational the program's management unit in Bahir Dar and take care of the existing logistics and equipment during the bridging period between phase 1 and phase 2, NFG has applied for 2nd no extension period. On 20 December 2021 RNE has approved a 4 months, i.e. January-April 2022. During this period, the program put all efforts to accomplish the unachieved and/or remaining tasks and activities as planned in the program's RF. In addition, the program used this opportunity to develop and submit to RNE, in opportune time, the program document regarding the phase 2.

1.3 NFG-FLR program approach

1.3.1 The foundation, the reference, the focus and the guiding principles

• The foundation

The foundation for FLR Program restoration interventions is the **"landscape approach"**. There are many definitions and different ways of applying landscape approaches. They reflect different entry points, processes, institutional and practical arrangements. However, most of the definitions refers to a set of concepts, tools and methods applied in landscapes towards achieving multiple environmental, social and economic objectives, through integrated and multidisciplinary manner, combining natural resources management with environmental and livelihood considerations.

Landscapes in Amhara are heterogeneous areas; a number of elements are creating a mosaic. These landscapes are created by humans invading natural systems; it results in a mosaic landscape of natural and human-modified habitats.

The FLR Program has adopted and adapted one of the definitions that well systemize the sense and the substance of the landscape approach, i.e.: "A long term process of regaining ecological functionality and improving human well-being across deforested or degraded landscapes" (IUCN/WRI).

From this definition 3 key elements can be underlined, i.e.:

- The need for a long term process to achieve multiple objectives: environmental, social and economic.
- The human activities and expectations must be considered as an integral part of the landscape.
- The root causes of problems may not be "site-specific" and the solutions require multistakeholder interventions to negotiate and implement actions, and this has to pass through participatory and collaborative processes involving different groups of land users, managers and stakeholders to achieve objectives and expectations within the targeted landscapes.

• The reference

NFG-FLR Program applied FLR-related knowledge and experiences acquired from different contexts, with a special focus on the specificities of the local context, i.e. degraded areas in Amhara highland context. The program has also taken into consideration the experiences and lessons learned in Ethiopia from years of supporting and promoting sustainable land management in general, and forest landscape restoration practices and interventions in particular. Accordingly, the NFG-FLR Program has integrated different procedures and practices, some of them are conventional, some are improved and some are innovative. By doing so, NFG is setting up an entry point towards developing a model that could be scaled further by the local stakeholders (Government).

• The focus

The immediate causes of forest landscapes degradation in Amhara are well known, i.e.: interrelated anthropogenic, management and natural factors. Therefore, the NFG-FLR program interventions are based on the integration of three complementary aspects that are fundamental for the effectiveness and the sustainability of any restoration activity, i.e.:

- Ecological aspect. Reduce activities that have been determined as drivers of forest landscapes degradation in the program areas through direct interventions aiming at improving forest land use practices, introducing and diversifying activities having direct impact on vegetation and tree cover in targeted landscapes within the program areas.

- Socio-economic aspect. Provide targeted incentives related to socioeconomic, capacity building and forest land use purposes. The aim is to promote forest landscape restoration through demonstrating basic and affordable activities that could promote the awareness and the self-initiative of the people and communities, insure their active involvement and contribution in restoring and protecting threatened forest landscapes and at the same time improve their livelihood.
- Management aspect. Identify, elaborate, promote and support innovative and appropriate agro-silvo-pastoral management practices and approaches to reduce the effects of land degradation and improve land use management in targeted landscapes/specific parts (Mosaics) of the landscape, within the program areas.

• The guiding principles

- Participation and diversification of the stakeholders. The FLR Program applied a participatory approach, based on continuous and active involvement of all the key stakeholders, at different levels. The program has also promoted the diversification of the stakeholders and partners aiming at supporting the program with productive partnership and cooperation such as constructive ideas, variety of opinions and initiatives, experiences and opportunities to achieve tangible results and promote sustainability.
- Realistic objectives and relevant interventions. FLR Program has identified and addressed realistic objectives and implemented relevant, practical and complementary activities, taking into consideration the conditions in the local context and the local people/communities needs and expectations that are in line with the program's objectives.
- Incentives. Local farmers and communities are already facing several socio-economic difficulties and may face additional constraints related to some of FLR interventions. To encourage farmers/communities involvement and commitment, the program provided the local stakeholders with targeted socio-economic incentives. The incentives are developed in a way to be relevant, affordable and promote the people's proactive attitude and self-initiative, and improve their livelihood while restoring and protecting their living environment.
- Gender Issues. The women are often more severely affected by land degradation hardship. Therefore, gender issue must be central in restoration to avoid continuing inequalities, to incentivize women and men to contribute to restoration efforts and to provide greater wellbeing opportunities for women and men alike. Gender-based participation in FLR initiatives generates broader local adhesion and enhanced capacities. This, in turn, improves prospects for both environmental outcomes and socioeconomic development in the targeted forest landscapes. To this end, the FLR Program has involved rural women in the program activities, and this was an entry point for their rightful benefit, notably from socioeconomic actions/incentives undertaken by the program. This issue was promoted through a fruitful partnership with the Amhara Women Association (AWA).

- Develop the sense of ownership. Some of the interventions implemented by the program have provided tangible results in short term period. This has developed the sense of ownership among the communities and stakeholders and makes them more confident when it comes to plan, implement and promote activities based on long term objectives and results.
- Awareness rising: Before starting the implementation of any activity, there are always preparatory working sessions with the partners, stakeholders, target groups and beneficiaries about the rational, the methodologies to be applied, and the expected results. The program managed to develop targeted awareness raising actions that are appropriate to the type of the implemented activities.

1.3.2 The NFG-FLR Program "Model" to Forest Landscape Restoration interventions

The NFG-FLR Program has been intervening in several degraded forest landscapes. The majority of these landscapes are located in highland context.

To insure efficient interventions, achieve tangible results and promote sustainable forest land use practices, the program methodology was based on interventions that took place within "given degraded areas" located in the program's Woredas. The program's "Model" to FLR interventions in these degraded areas is based on a combination of 2 complementary restoration methods, i.e.:

- i. Restoration of degraded forest landscapes at village level
- **ii. Restoration of degraded forest landscape through establishing enclosures** [Enclosure-Based Restoration]

1.3.2.1 Restoration of degraded forest landscapes at village level

Land Use Planning (LUP) is the basic component for FLR Program interventions. The conventional LUP method conducted in Amhara has its focus on agriculture and cultivated areas. Thus, the NFG-FLR Program has refined the conventional method through adapting it to a planning process aiming at defining and implementing targeted restoration interventions in degraded Forest Landscapes, i.e.: FLR-Based LUP.

The FLR-Based LUP is the result of a participatory planning process consisting of assessing forest land use practices, addressing the degradation problems and the livelihood needs and proposing relevant and appropriate restoration interventions to improve the situation in a given forest landscape area. The development map is the key planning tool resulting from the FLR-Based LUP. It's illustrating the variety of activities proposed by the local stakeholders to reduce the existing problems and improve the situation in the targeted forest landscapes.

• The LUP's Development Map as a reference for FLR Program interventions

The results of FLR-Based LUP are systematized in a **"development map"**, i.e.: a map showing the new land use plan proposed by the community and the local stakeholders to reduce the existing problems of forest landscape degradation.

The map is the key planning tool resulting from the FLR-Based LUP. It indicates both FLR-based and demanddriven interventions proposed by the local stakeholders to improve the situation in the targeted forest landscapes. The map here attached illustrates the result of this process; the case of Mechana Kebele in Ebinat Woreda.

• Detail plans as a basis for FLR Program interventions



The FLR Program cannot intervene in the whole area covered by the LUP. Therefore, **"detail plans"** are developed for a given area by identifying and prioritizing the interventions within the planned forest landscape: What to do where? The detail plans are the basis for FLR Program interventions. All the interventions implemented by the program are FLR-Based and in line with the program objectives. The interventions could cover a wide range of activities, such as:

- Tree-based restoration: Agro-forestry, woodlots, trees on farm, etc.
- Enclosure-based activities: Controlled grazing, natural and assisted regeneration. enrichment planting activities cut and curry system, etc.
- Improved land use practices and climate smart agriculture: Demonstration and implementation of improved forest land use practices.
- Livelihood-based activities: Socioeconomic incentives for organized user groups.
- Support of the existing soil and water conservation terraces: Grasses, trees, etc.

• The FLR Program Green Village Concept: Create "Model Landscapes" to scale up

To make the FLR interventions impact tangible and create "Model Landscapes" that can be scaled up to larger areas, in the neighboring territories, other villages, Kebeles and Woredas; change the attitudes of the local people and communities and promote their self-initiative regarding FLR, and also involve actively the local stakeholders and authorities, NFG has promoted the Green Village concept in some of the villages located in the degraded forest landscapes where the FLR-Based LUPs are developed.

The objective is to demonstrate to the local people and communities how it is possible to improve the situation in their living environment and create opportunities for their livelihood just by organizing themselves, taking initiatives and implementing appropriate interventions that require basic and affordable means.

- The selection of the sites to establish Green Villages

The selection of the sites to be developed as Green Villages is passing through а participatory process where the local stakeholders proposing different are "candidate villages".

The selection is based on some criteria such as the accessibility, the availability of basic infrastructure such as school, farmers training center, church; diversity of land use, and of course the mobilization, the motivation and the willingness of the local people and communities to participate in the activities.



- Types of interventions in the Green Villages

The interventions in the green villages are covering a range of activities, combining improved forest land use practices, FLR-based activities and also livelihood-based activities and socioeconomic incentives for organized user groups.

The following box illustrates the main types of activities implemented in the established green villages in the FLR Program areas.

Main activities implemented in FLR Program established Green Villages

NFG-FLR Program has implemented a range of interventions in the established Green Villages. The interventions are adapted to the local context, needs and priorities, i.e.:

- Sustainable Forest/Land Use/Agriculture Practices: Demonstration Activities/ Innovative practices/ Equipment.
- Access and Rational Use of Water: Rain Water Harvesting/ Drip Irrigation/ Solar Water Pumps/ Reservoirs, etc.
- Efficient/Clean Energy for Basic Needs: Heating/ Cooking/Lightening
- ✓ Basic Infrastructure Construction/Maintenance: Farmer Training Centers and Schools.
- Livelihood Economic/Value Chain Opportunities: Production and Storage Facilities/Production and processing tools, etc.
- ✓ Basic Knowledge for the Local People/Community: Awareness/Capacity Building and Training/ Experience Sharing
- ✓ On farm activities such as production of fuel saving stoves, bee keeping, etc.



(For more details refer to the Memo annexed to the present report)



1.3.2.2 Restoration of degraded forest landscapes through establishing enclosures (Enclosure-Based Restoration)

Enclosures are common land areas, which are usually open access, where forest land use practices such as grazing and wood cutting are forbidden or strictly limited in order to promote the restoration and natural regeneration of degraded forest landscapes.

Enclosure-Based Restoration has become a common practice in Ethiopia, notably in the highlands. The enclosures are usually established in steep, eroded and degraded areas that have been used for grazing. It has gained acceptance as a method to restore degraded forest landscapes and proved to be effective particularly when the local people and communities play an active role in applying and respecting the management rules and also when there's a strict monitoring and follow up from the local stakeholders.

• NFG-FLR Program Rational for applying Enclosure-Based restoration approach

The FLR Program objective as defined in the RF is to achieve 50,000 ha restored and/or planned.

To identify degraded forest landscapes and define relevant restoration interventions in the program intervention areas, the FLR Program started the planning process by applying the LUP-Based approach (Refer. Paragraph 1.3.2.1).

From the beginning of the working process, the program's focus was on identifying enclosures for possible restoration. However, during the course of action, the realities in the field brought to evidence that in the planned territories it is difficult to identify large areas where enclosures can be established in order to achieve the planned goal, i.e. 50000 ha.

Due to this fact, the program has organized in September 2019 a working session in Bahir Dar with the representatives EFCCC (Currently EFD) to discuss this situation and find out appropriate solutions. During this working session, the EFCCC representatives recommended to the FLR Program to use Enclosure-Based planning method which consists of identifying and mapping only enclosures. The method is based on active mobilization and participation of different stakeholders, notably farmers/communities.

The EFCCC representatives have recommended expanding the planning process in new Kebeles within the Woredas included in the program's intervention areas. They also advised to involve Amhara Design and Supervision Works Enterprise (ADSWE) in identifying and mapping the areas.

Accordingly, the program has signed a MoU and a cooperation agreement with ADSWE, and the work was launched in October 2019 with the following specific objectives:

- Identification and mapping of enclosures.
- Development and approval of bylaws by the local stakeholders.
- Propose appropriate interventions in line with FLR Program objectives.

• Scope of the activity

The works were launched in October 2019, and started simultaneously in three Woredas, i.e. Ebinat, Farta and Libokemkem. In 2020/2021 the process was extended to cover Adama and Choke Mountain Cluster Woredas: South Mecha, Yilmana densa, Quarit, Sekela, Bibugn, Sinan, and Debay Tilatgin. The activity covers most of the Kebeles in the concerned Woredas, except those where the program has already developed LUPs.



Working procedures

The Enclosure-Based approach is composed from the following sequence of procedures:

- Pre-field works: Data collection and base map preparation.
- Field works: Communication with the concerned stakeholders, notably the people who are affected by the identified

enclosures, i.e.: lidentification procedures, community discussion and approval, ground truthing and GPS coordinates delineation and mapping of the sites, etc.

 Post-field works:
 Evaluation of the field work and map development. Every identified enclosure is delineated and mapped with agreement of the community.



- **Development of by laws**: The development of bylaws of the identified/mapped enclosures is the ultimate and conclusive objective of the activity.

• Development of bylaws for the identified and mapped areas enclosures

The development of the bylaws for the identified and mapped area enclosures is the conclusive objective of the activity and an important entry point for the restoration of the identified sites. Therefore, the FLR Program has been extensively working on the development of the bylaws to formalize the approval and the management of the identified enclosures by the concerned local people/community.

The bylaws are developed in accordance with the standard methodology for developing bylaws. The bylaw template developed in Wello in the frame work of IFSD Program is used as a reference.

The Bylaws are approved by all the concerned stakeholders, at different levels, i.e.:

- Local people/community.
- Watershed Committee.
- Kebele Administration and office of land use.
- Woreda Office of Agriculture.



During the bylaws development process, the concerned stakeholders raised diverse ideas and proposals regarding the necessary interventions to be implemented in the identified areas. The ideas and proposals vary from place to place, depending on the environmental, agro-ecology context and the local socioeconomic needs.

Concrete actions to be undertaken in the identified areas are discussed and approved, case by case, during the process of bylaws development.



• FLR Program interventions in some of the identified and mapped enclosures

The program could not intervene in all enclosures where bylaws are developed (More than 137, 000 ha). Thus, FLR Program applied a selective approach, i.e. targeted interventions on some selected areas, based on the purposes in the approved bylaws.

2 main methods are applied by the program:

- <u>Non-assisted</u>: It consists in protecting enclosures against livestock and human interference, with no interventions. The management is the responsibility of the farmers who approved the bylaws.
- <u>Assisted</u>: Enrichment plantations using exotic and indigenous species.

Regarding the Benefit for the farmers affected by enclosures, it is mainly the grass to harvest for



fodder, once a year, using a cut and carry system. Depending on the contexts where the enclosure is located and the status of its vegetation cover, some additional benefits could also be obtainable, such as bee keeping, firewood collection, etc.

1.3.3 Methodology for baseline studies and carbon stock assessment in FLR Program intervention areas

The purpose of a baseline study is to gather the information at time zero that will serve as reference points of empirical change throughout the intervention period and beyond.

FLR Program objective is to assure that the baseline studies are aligned with the baselines of other related programs for Landscape Restoration in Ethiopia. From the early stage of the program's working process, the baseline issue was raised by NFG which underlined that the FLR program would like to use the same methods as used in the REDD+ Investment Program (RIP/2017-2021). To this end, NFG asked for practical information about the methodology used by these two programs to be able to use the same setup in the FLR Program. NFG has recurring discussions aiming at getting practical feedback regarding this issue, but unlikely, the NFG request remained unfulfilled.

To promote this issue, NFG has also informed the FLR Program Steering Committee members and it was suggested that NFG should start developing a draft methodology and then circulate for the key stakeholders for comments and improvements.

Accordingly, NFG-FLR Program took the initiative through involving one FLR Program partners in Norway (NIBIO) to develop a draft-methodology for Land Cover Class and Biomass Carbon Stock Assessment for enclosures. The methodology could be an important step forward to achieve data that are possible to use for future carbon credits. If the EFCCC will approve the developed draft-methodology, it would improve the value of the land monitoring system and also give sustainability to the program outcomes.

• Description of the developed NFG draft-methodology

The developed NFG draft-methodology, **i.e.** "Land Cover Class and Biomass Carbon Stock Assessment" was developed and initiated as pilot study in a pilot area, i.e. Tigage-Kita cluster enclosures in Ebinat and Meketewa Woredas.

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Burto: h Apes Shirhoch / deglacessere m	Woredas	Kebeles	Site Name	Area [ha]
an her 1324		Aquashmoch	Balahu	256
		Aquashmoch	DurAmba	215
	Ebinat	Birkoch	Alimajet_Tikin_Wuchar	468
		Birkoch	JijirDiba_JibAmba	373
		Birkoch	Jumho_Gardi	236
Baliff Rende		Qita	ketimut	3315
		Tigagie	Chilenwala_Sifla	3727
Kita Kesele		Tigagie	JirruTebel	1630
Deber Teilelenym rinnt, Nebiele	Meketewa	D. Haymanot	Tikuramba	985

Map of Tigage-Kita cluster enclosures (Ebinat and Meketewa Woredas)

Rational and objective

The background/rational for developing such a methodology is the FLR Program output described as: "*An increase in vegetation cover that can form a basis for future carbon credits is recorded*".

Thus, the FLR Program was expecting to assess the baseline for the forest landscape restoration project in Amhara region. The goal of the baseline is to identify the current forest land cover and assess the existing stock of aboveground biomass, based on the relevant and most recent data. The Methodology is compatible with the **IPCC 2006 guidelines**.

- Data and Method

The shape polygons (Digital) of the restoration areas to identify the areas and estimation of area size. These shape polygons are developed by ADSWE during the FLR Program working process of identification and mapping of enclosures.

- ✓ Remote sensing imagery data.
- ✓ Training data for land cover classification.
- ✓ Land cover categories.
- ✓ Classification method/image classification.
- ✓ Calculations of area per land cover class.
- ✓ Etc.



Schematic illustration for image classification

CHAPTER 2: FLR PROGRAM ACHIEVED RESULTS

2.1 Organizational/Management/Administrative Issues

2.1.1 NFG Registration as an important efficiency factor for the program's implementation

Even if the formalities related to the registration procedures at Charities and Societies and also the signing of the agreement with BoFEC were time-consuming, the process finalized in September 2019, these indispensable formalities have allowed to NFG to act as an independent implementing organization in Ethiopia.

• Recruiting local specialists

Right after achieving the agreement with BoFEC the FLR Program has engaged local specialists, on full and part time basis, in order to support the local partners' staff and boost the activities in the intervention areas as well as in the management unit, i.e. land use planning and forest tree nursery activities.

• Promoting partnership and cooperation with the local stakeholders

Furthermore, the registration gave the opportunity to the program to promote partnership and cooperation with key stakeholders and organizations and involve them directly in the programs activities without passing through the co-implementing partners (ORDA and AFE). Agreements have been signed with ADSWE to identify, map and develop bylaws for enclosures which was very crucial in the achievement of the program's objectives.

In the same course of action, the program has promoted its direct cooperation with the Woredas Offices of Agriculture to implement many pertinent activities for the program such as strengthening of the tree nurseries, production of tree seedlings and participation in the identification of appropriate sites for the planting activities.

To boost and diversify partnership with local institutions working on capacity building and training activities, the program has also involved different departments and specialists from Woreta ATVET to develop appropriate training materials and conduct courses on a number of relevant topics (Animal production, animal health, NRM, irrigation, agro-forestry, forest land use practices, etc.) for the benefit of the farmers and Development Agents (DAs) in the program areas.

This was also the case with Amhara Region Agrarian Research Institute (ARAR) for the implementation of demonstration activities related to climate smart agriculture thematic and also training activities for the farmers in the program areas.

Promoting environmental education for school children

To improve and promote environmental education at some schools in the program areas, the program has also involved the Bureau of Education (BoE) to join efforts and develop materials on environmental education, in line with the local context and realities, that would capacitate both teachers and school children and rise their awareness regarding this crucial thematic of environment protection and basics on forest landscape restoration.

• Involving women in the program activities

To support the role played by women in the rural areas, the program has also actively involved Amhara Women Association notably through engaging the organization in the promotion of gender issues by involving some members in organizing women groups in the program areas and providing them with awareness rising and training sessions as well as incentives to increase their livelihood (The case of the Green Villages' activities).

• Organizing informative/technical working sessions

The formal registration of NFG has also allowed to the program to be more proactive when it comes to the organization and promotion of technical, instructive and informative working sessions with the local stakeholders and other organizations/actors working in the field of forestry, agriculture and Natural Resource Management in Amhara region. These sessions were a real opportunity to discuss practical ideas and share experiences on relevant topics, achieved results and faced challenges, e.g. Green Tables.

2.1.2 FLR Program MTR assessment

Initially it was planned to undertake the MTR of the FLR Program in the first quarter of 2020. The procedure was delayed because of the COVID-19 restrictions. The MTR started in October 2020 and was assigned to the company SCANTEAM. The purpose of the MTR was to verify, evaluate implementation so far in order to support RNE, EFCCC, NFG and major stakeholders in making the necessary adjustments for the remaining period of project implementation.

The findings and conclusions of the MTR are related to the program's relevance, the strategy, the implementing methodology, the results achieved, and the progress made.

- Concerning relevance, the MTR underlined the consistency of the program with the Ethiopian government's top priorities for sustainable forest sector development as well as with the national and Amhara regional REDD+ program.
- Regarding working strategy, the reviewers pointed out the efficiency of the program by assessing the working approach which is based on the diversification of the partners and the joint action with already well-established organizations, at local, regional and national level. They also underlined that such a strategy may ensure effectiveness of the implementation and promote the sustainability.

 As to the results achieved, the MTR highlighted the fact that the main relevance of the FLR program is not how many hectares have been restored so far, but the areas that are in the process of being restored, especially through participatory land use plans and enclosures areas with approved bylaws.

The MTR also attributed the efficiency and the effectiveness of the program's implementation to the participatory approach applied throughout the different stages of the working process that is: joint action and diversification of partners and stakeholders; the applied approaches and methodologies; the introduced practices and the complementarity between the activities.

Concerning the progress made, the MTR noticed the relationship between the implementation progresses made, i.e.:

- The program has already achieved 69.8% of its output targets and 84.2% of its outcome targets (Estimation by end 2020).
- Regarding the financial resources invested, by the end of 2020, the program had used 73% of the execution budget.

The MTR underlined that these indicators give expectations for scaling-up the outcomes during 2021 and a potential second phase due to the large need for landscape restoration in Amhara region and also to insure tangible impact and sustainability of the FLR Program. NFG took into consideration the conclusions and the recommendations made by the MTR reviewers. Several working sessions involving FLR Program staff, the program's Steering Committee members and key local stakeholders have been organized to analyze the substance of the MTR conclusions and recommendations, and provide constructive feedback, responses, opinions and methods enabling to improve the FLR program working process and promote its efficient implementation. Subsequently, NFG has developed a Management Response Matrix illustrating the recommendations as presented by the MTR, and the responses resulting from the discussions between NFG, the FLR Program local partners and stakeholders. This management Response matrix was also submitted and discussed with RNE.

2.2 Technical Issues/Activities

2.2.1 Summary of the achieved results by outcome correlated to the program's Results Framework (2017-2022)

The FLR Program has used the Results Framework as a basis for the planning and implementing process and also as a monitoring tool to follow up and supervise the implemented activities. The FLR Program has also taken into consideration all constructive recommendations and directives provided by the program's steering committee and the key local stakeholders and organizations. The results presented in the report are correlated to the RF and cover the 5 outcomes. All the activities targeted in the FLR Program RF are accomplished. Some of the results are even exceeding the planned targets. The following table is systemizing the main achieved results for the whole program's period.

Outcomes		Activities	Achieved Results	
	FLR-Based	No. of LUPs developed	12	
	Land Use Plans [LUPs]	No. of hectares planned	78,509	
OUTCOME 1: Land use plans with local		No. of plans developed (identification and mapping of enclosures)	14	
participation and involvement	Enclosures	No. of hectares identified and mapped for possible restoration	166,646	
		No. of By-laws for enclosures developed and approved	1,035	
		No. of hectares covered by bylaws for enclosures	137,184	
	No. of Participants	 No. of Participants (men and women) in the planning process (LUPs and Enclosures) 	81,693	
OUTCOME 2:		No. of tree nurseries strengthened in the program area	9	
High quality planting materials used locally,	Tree Nurseries	 No. of tree seedlings produced and planted (Including the seedlings produced at ORDA Tissue Culture Laboratory) 	4,1 Million	
suitable for large- scale forest landscape restoration		 No. of manuals for cultivation of a variety of forest/fruit tree species relevant for landscape restoration where high-quality seeds are available 	32	
OUTCOME 3:	• No. of he enclosure	ectares restored (Area covered by the developed/approved bylaws for es)	137,184	
landscapes and improved land use	 No. of hectares in detail planned to be restored (Including LUPs and areas where bylaws for enclosures are develop/approved) 		215,693	
in the Program Areas	No. of established demonstration plots in the program areas			
	No. of "Green Villages" established in the program areas			
OUTCOME 4: Increased	 No. of hectares planted/planted area (Woodlots, agro-forestry, trees on farms, etc.) 		1,151	
stock available after full rotation	• No. of households that will have access to more sustainable source of firewood			
	 No. of P identifica 	Public information meetings in the Program Areas (Including LUPs, tion/mapping of enclosures and development of bylaws)	663	
Increased capacity of implementing	• No. of enclosure	participants (Including trainings, LUPs, identification/mapping of es and development of bylaws)	89,719	
FLR	• No. of tra	ining courses and manuals developed	33	
	• No. of tra	iners trained in FLR	288	
	• No. of tra	iners conducting a course	50	
	• No. of far	mers in the PA trained	7,738	
	No. of sch	nool children participated in training on environmental education	8, 668	

Table 2. Main achieved results for the whole program's period [November 2017-April 2022]

Remark: For more information please refer to the FLR Program RF, annexed to the present report. The annexed RF is summing up the achieved results during the whole program period i.e. November 2017-April 2022 [*Main program period* (November 2017-December 2020) *plus the first no cost extension period* (2021) *and the second no cost extension period* (January-April 2022)].

2.2.2 Outcome 1: Land use plans with local participation and involvement

The FLR Program has applied 2 restoration-based planning approaches and developed 2 kinds of plans, i.e.:

• FLR-Based Land Use Planning (LUP) at community/village level

The table below describes the developed FLR-Based LUPs during the whole program period (November 2017-April 2022). It includes the zones, the Woredas and the Kebeles where the LUPs are developed as well as the total area covered by the LUPs.

Zones	Woreda	No. Kebeles	Total area covered by The LUP	Number of LUPs	No. Participants	
		included	[ha] [Refer. Development map]	developed	Men	Women
South	Ebinat	7	14342	2	101	35
Gonder	Libokemkem	7	18165.2	3	398	86
	Farta	3	7390	1	152	43
	Quarit	2	4514.4	1	137	28
Adama Cluster	Sekela	1	4670	1	72	12
Cluster	Yilmana Densa	4	12570	2	241	53
	South Mecha	1	3499	1	81	14
Awi Zone	Guangua	2	13359	1	125	22
Total	8	27	78509.6	12	1307	293

Table 3. The Developed FLR-Based LUPs

• Endorsement of the developed LUPs by the local stakeholders

The endorsement and distribution of the developed LUPs to the local stakeholders was done through organizing working sessions involving the following key stakeholders:

- Woreda Administration Head.
- Office of Agriculture Head.
- Office of Agriculture NRM process owner.
- Office of Rural Land Administration and Use Head.
- Office of Water Resources Development Head.

The working sessions are organized to keep informing the local stakeholders with targeted information about the progress made and also underline the specificity of FLR-Based LUP methodology and also call their attention to the fact that the developed LUP documents are the result of the proposals and expectations of local people/communities aiming at improving the situation in given areas where the forest landscapes are facing severe degradation.

The endorsement procedure was also an opportunity to discuss and clarify that the developed LUPs are "long term plans", and therefore their concretization in the field needs a gradual implementation, a continuous mobilization of the local stakeholders and diversification of contributors and resources.



Concerning the role and tasks of NFG-FLR program, it was clarified for the local stakeholders that the program has implemented specific interventions that are in line with the program's objectives specified in the Results Framework and approved by RNE.



Thus, the program has "just" participated in initiating some restoration activities of the degraded landscapes through selecting and prioritizing restoration interventions, using the developed LUPs as a basis. Hard and soft copies of the developed LUPs are formally transmitted to the above mentioned stakeholders, and also to EFWPDA, BoA, OoA and BoFEC.

• Enclosure-Based Restoration Plans

The working process related to the development of enclosure-based restoration plans was implemented through joint action between NFG and ADSWE. The activity covered most of the Kebeles within the Woredas included in the program intervention area, except those where the program has already developed FLR-Based LUPs.

The following table describes the developed enclosure-based plans during the whole program period, the zones, the Woredas and the Kebeles where the enclosures are identified, mapped and the bylaws are developed, as well as the total area covered by enclosures.

Identification and Mapping of Area Enclosures			Bylaws			
Region	Woreda	No. Kebeles Involved	Identified and	Developed and Approved		
			Mapped Area (ha)	No. Concerned Kebeles	No. Bylaws	Covered Area (ha)
	Ebinat	26	33443	26	121	33443
South	Mekatewa	11	10064	11	86	10064
Gonder	Farta	32	8151	29	123	7358
	Guna Begemeder	18	4201	15	185	4201
	Libokemekem	32	6622	15	32	5622
	Bebugn	16	8010	14	40	3833
Adama	Quarit	29	8933	29	68	4291
Cluster	Sekela	30	14675	30	99	13456
	Senan	17	10397	14	60	8287
	South Mecha	14	6265	11	51	5135
	Yelmana Densa	33	10190	20	34	6083
Choke	Sedie	14	8957	14	18	4795
Mountain	Dibay Tilatigin	50	7737	47	48	7700
Cluster	Dega Damot	70	28995	70	70	28995
Total	26	397	166646	345	1035	137184

Table 4. Summary of the identified and mapped enclosures areas and developed bylaws

• Mobilization and Participation of the local stakeholders

Every identified area enclosure is delineated and mapped with agreement of the community. Thousands of community members, most of them farmers, have participated in the working process. More than 80000 farmers took part in the process of developing and approving bylaws of a large area of the identified and mapped enclosures.



Woredas	No. of participants/ beneficiaries concerned by the developed enclosure bylaws
Ebinat	1531
Mekatewa	696
Farta	5072
Guna Begemiedir	4563
Libokemkem	1030
Bibugn	3930
Quarit	5884
Sekela	13456
Senan	60
South Mecha	5709
Yelmana Densa	3552
Debay Tilatigin	9997
Dega Damot	21920
Sedie	2693
Total	80093

Farmers/communities who approved the bylaws raised diverse ideas and proposals regarding interventions to be implemented in the enclosures. The ideas and proposals vary from place to place, depending on the environmental/agroecology context and local socioeconomic needs.

These perceptions need to be discussed and endorsed, case by case, during the process of enclosure management whish has to be guided by local community's/farmers' self-management and self-interventions, under supervision and follow up of the local Office of Agriculture.

2.2.3 Outcome 2: High quality planting materials used locally, suitable for large-scale forest landscape restoration in Program Area, from local tree nurseries

• Assessment and selection of the tree nurseries in the program areas

The tree nurseries assessment was done during the program's inception phase. The tree nurseries in the 8 Woredas included in the program focus area were assessed and 3 types of tree nurseries ownership were identified, i.e.:

- Model tree nurseries owned by government and non-government organizations and state enterprises.
- Tree nurseries owned by cooperatives.
- Private tree nurseries owned by individuals.

The lack of resources, appropriate management practices and competitiveness are identified as major constraints and limiting factors in most of the assessed tree nurseries, but the degree of the deficiency was more severe in the cooperatives and private nurseries.

• Selection of the tree nurseries to involve in the program activities (Strengthening procedures and production of quality planting material)

For practical reasons, NFG in consultation with the local stakeholders and partners have agreed to focus on the tree nurseries located in the program areas where Land Use Planning activities will be developed, i.e. Ebinat, Libokemkem, Quarit and Farta Woredas and select the tree nurseries having potential, capacities and accessibility (Located near by the zones where the planting activities will be established).

All the selected tree nurseries are managed/owned by the Woreda's Office of Agriculture. They are the

optimum ones in the intervention areas and have the capacity to produce big quantities and quality planting materials.

Totally 12 tree nurseries are selected, but the FLR Program has intervened in 9 of them. In order to define the reasons and the problems behind the lack of management and the unproductive use of the existing potential in the selected tree nurseries and identify the priorities and the needs to improve their status, the selection process was accompanied by an evaluation of the situation in the selected tree nurseries.



Accordingly, the program has supported the selected tree nurseries with targeted strengthening activities related to management, production and capacity building aspects.

Main strengthening activities carried out by FLR Program in the tree nurseries

- ✓ Rehabilitation and maintenance of basic infrastructure in the nurseries compounds [Improving and fencing the nursery compound with wire and wood poles, construction of nursery gates with metal doors.
- Construction of store and guard houses [wood and mud based constructions].
- Improving the irrigation setup/watering facilities and provision with hand water pumps.
- Provision with basic working tools/equipment to support the working procedures within the nursery compound [wheel barrows, shovel, spade, watering cans, tools for carrying water cans and plastic boxes for seedling, etc.]
- Improving quality seedlings production through installation of green house technology with shade clothes and metal poles.
- ✓ Training activities for nursery forman's and workers, and demonstration of relevant tree nursery practices, experience sharing, etc.



The following table shows the tree nurseries concerned by the strengthening and by the production of tree seedlings to cover the program needs regarding the planting activities in the program's areas.

			Remark				
Woredas	Kebeles	Selected Tree Nurseries	Nurseries strengthened and produced seedlings for the program	Nurseries strengthened but didn't produce seedlings for the program			
- 1.1	Zeha	Bariawonze	+	-			
Ebinat	Amistya	S. Matebiaya	Not co	oncerned			
	Shehoch	Shehoch	-	+			
	Derita	Chewulake	Not concerned				
Libokemkem	Addis Zemen	Adis Zemen	+	-			
	Berkutie	Dengura	+	-			
	Estifanos	Wrkafra	Not cc	oncerned			
	Agela	Amrach	-	+			
	Debre	Adico	+	-			
Farta	labor	Saharna	-	+			
Quarit	Fengita	Fengita	+	-			
		Guna Gunit	-	+			
Total		12	5	4			

Table 5.	Tree nurseries	concerned	by the st	rengthening	procedures	and seed	lings pro	duction
	ince manuelles	contechned	sy the se		procedures	and beed		aaction

• Development of manuals for cultivation of tree species relevant for the highland context

The program has developed manuals, in a form of leaflets, for cultivation of a variety of tree species for forest landscape restoration relevant for the highland context in Amhara. Totally 32 species are developed. The manuals are structured in a way to provide systematized and pertinent information for specific target groups, notably the FTC's trainers, the Development Agents and the tree nurseries staff. The content of the manuals is composed from the following 6 elements:

- Description of the tree species.
- Management procedures.
- Main uses.

- Propagation methods.
- Seed collection, treatment and storage.
- Relevant information and remarks characterizing the concerned tree species.

The manuals are developed in English, translated to Amharic and distributed to the local stakeholders, i.e. FTC's, tree nurseries and Development Agents.

Table 6. List of the tree species developed as manuals

No.	List of tree species relevant for the highland context in Amhara developed as manuals/leaflets	nd me ne					
	For agroforestry planting activities	o Juliakis Tree for H	gitlend Contact in Amhars	Printile Trea in: Eight	and Countern In Annulation		
1.	Acacia nilotica			U 1 U			
2.	Croton macrostachyus	H ANA		H			
3.	Acacia albida	-		-			
4.	Mangifera indica	0	Obramous asiasidas				
5.	Milicia excelsa		Indigenous Andert: Garbo		Section Automatic Section		
6.	Persea americana	Fitzen aus persiste Praises le caritester les la sale fond	e (järde) is welegenet in sonars regas, on mediumte higt obtacle, in gesolinde, a me an the nargina of everyone fonds. Indonesiant	A constant native to northern influence is is a droughe redictor and valuable Occurs at low alternation for dry.	non-collimited instantics the proto. Interaction of the photophotophotophotophotophotophotophot		
7.	Psidium guajava		3000 3230 m		MD 18-33 W		
8.	Cytisus proliferus	Louis an T	a be highland answer look mines	cristians in	National Action of Contract		
F	or soil and water conservation [SWC] activities		Forest Landscape Restoration	NFG			
9.	Acacia senegal		Program	ADRIMEDING FOR	EXTRY DROUP		
10.	Erythrina abyssinica	-	Suffable Trees for III	ightend Context in Author	й. — — — — — — — — — — — — — — — — — — —		
11.	Rhamnus prinoides		3.4	1 the			
12.	Sesbania sesban		Starter 1				
	Woodlots/Commercial planting activities		State State	and the second			
13.	Acacia abyssinica						
14.	Acacia decurrens						
15.	Acacia melanoxylon	o					
16.	Afrocarpus falcatus	2 E					
17.	Acacia saligna	Croton macrostachyus					
18.	Acacia senegal						
19.	Cordia africana	Found throughout tropical Africa. While spread on forest margins. In Amhara It grows mextly in sails all valentic origin in sity, moist and wet nighting, and highland,					
20.	Eucalyptus camaldulensis		as well as in upp-	er altitudes of low land agro-climatic [//l/re 1100-;	zones. Igions) 2300m.		
21.	Eucalyptus globulus		Sature tres	for Highland carden: In Arris and			
22.	Eucalyptus grandis						
23.	Grevillea robusta	Formal Landscape	NEG C	Forest Lands apr			
24.	Hagenia abyssinica	Pagine	ADDRESS OF COLUMN	Pogun	NFG C		
25.	Hevea brasiliensis	alizable Tree to	r Bigfalanel Constant in Anshorn	Bedtable Treez Berl	lightend Context in Andrew		
26.	Juniper usprocera				None South		
27.	Olea europaea						
28.	Oxytenanthera abyssinica	THT.		HT CAR	No. States		
29.	Moringa oleifera	80			V		
30.	Pinus patula	5	Acacia albida (noseessatele)		Sesbania sesban		
31.	Prunus africana	Marina Assault	Indigenous Ambase Gor Ambase Gor Store	ne ne her di sony sock (A	incigeneus Amharia: Gheopie Inan Sedenia: manuli, ikisimted in Mita min et ante china		
32.	Yushania alpina	erre e	more control on an analy in which again land [Genear, Wink, Shear region, etc.] Altim on a 2000 a	in Delivop a, it is found nearly writing to under the	a large mean reason was not been a south a large mean of it performs well in most and contracts of all most reglands agree for a to be me 200 (200 m		
		No.	🗭 pringhachanan de Balana	Subastance.	for inginant consult in Northers		

ORDA's Tissue Culture Laboratory

The FLR Program has supported the ORDA Tissue Culture Laboratory located in Bahir Dar. This Laboratory was established in a previous development program funded by Norway and implemented by NFG.

Different actions are realized in the Laboratory. This includes the improvement and the greening of the landscape of the compound, insite works regarding the production of quality planting materials.

The laboratory has managed to produce more than 41000 fruit trees seedlings, mainly mango, banana, avocado, papaya and bamboo. The seedlings served as incentives for the farmers



and also as small scale agro-forestry plantations in the Green Villages established in the program areas.

2.2.4 Outcome 3: Restored landscapes and improved land use in the Program Areas

• Restoration at village level: Establishment of the Green Villages as "model landscapes"

The entry point for FLR activities at village level is the Land Use Plans developed to assess forest land use practices and livelihood activities, address the degradation problems in given forest landscape areas and propose relevant restoration interventions to improve the situation.

Considering the fact that the program can not intervene in the whole area covered by the developed LUPs and has to consider just the FLR-Based interventions which are in line with the program objectives, detail plans are developed for given areas to identify and prioritize the interventions within the planned forest landscape.

The detail plans are the basis for FLR Program interventions at village level. The objective from the interventions at village level is to demonstrate to the local people/communities how it is possible to improve the situation in their living environment and create opportunities for their livelihood just by organizing themselves, taking initiatives and implementing appropriate interventions that require basic and affordable means.

To this end, NFG has promoted the Green Village concept in some of the villages located in the degraded forest landscapes where the FLR-based LUPs are developed. Totally 8 Green Villages are established in the program areas. This approach which still under development would make FLR interventions impact tangible and allow creating model landscapes that can be scaled up to larger areas, in the neighboring territories, other villages, Kebeles and Woredas.

Woredas	Kebeles	Village Names	Total area of the villages (ha)	
Ebinat	Serawudi	Serawudi	550	
	Amstya	Gedam	783	
	Shehoch	Woyibeyegn	757	
Libokemkem	Taragedam	Quhala	260	
	Birkutie	Kisimi	415	
	Agella	Amorabet	235	
Farta	Medeb	Shello	968	
Quarit	Chefakit	Chemen	888	
Total	08	08	4856	

Table 7. List of established Green Villages

FLR Program interventions in the Green Villages are mainly composed of 5 types of activities:

- FLR-Based interventions such as tree-based restoration (Agroforestry, woodlots, trees on farm), small scale enclosures for controlled grazing, demonstration plots to illustrate improved land use practices and climate smart agriculture, support of water and soil conservation terraces with shrubs and grasses, etc.
- Livelihood-based activities for the benefit of the local farmers/user groups including women (Demand-driven affordable incentives) such as bee keeping, production of fuel saving stoves, solar lanterns, provision of fruit trees seedlings, etc.
- iii. Construction and maintenance of basic facilities in the village area (FTCs, schools, production and storage facilities, etc.).
- iv. Basic sources for household energy such as fuel saving stoves for women user groups, solar lanterns and solar pumps for small scale irrigation purposes.
- v. Training activities based on demand-driven and FLR related topics.



The program has developed maps for all the established Green Villages. The maps will serve as a tool for implementing activities, monitoring and follow up and improvement of the site. These maps will be further developed in the Phase II of the program.



• Demonstration Plots to promote relevant land use practices

Extension method like demonstration plots is the major practical instrument for introducing the findings of research in agricultural and agro-forestry practices to increase productivity and production and strengthen the capacities and the livelihood of the farmers.

The FLR Program used the demonstration plots to teach various agricultural techniques and showcase new or improved crops. They also serve as a venue to test new methods alongside traditional ones. The program has also applied the demonstration plots as an effective means of communication to transmit knowledge, skills and new practices that stimulate farmers for action.



The program has introduced and promoted relevant agricultural, agro-forestry and other land use

practices through implementing small scale demonstration plots, accompanied by on site practical training sessions for the farmers in the program areas. The activity is organized through a joint action with the local partners, notably with ARARI and ORDA.



Totally 51 demonstration plots are established during the program periods, most of them on farmers' lands in the established green villages.

Topics of the demonstration sites established by ARARI	 Pre-scaling up of acid soil management for enhancing bread wheat production and productivity in Shat kebele [Quarit Woreda]. Pre-extension demonstration of improved potato technology in Farta and Sekela Woredas. Pre-extension demonstration of Jibat Maize variety with its production package in different kebeles in Farta Woreda. Pre-scaling up of management of faba bean stem and leaf gall disease in Burktie kebele, Libokemkem Woreda. Pre-extension demonstration of BH-546 and BH-549 maize variety with its production package in Ebinat and Libokemkem Woredas. Pre-extension demonstration of improved watermelon variety in Libokemkem Woreda.
Topics of the demonstration sites established by ORDA	 Modern Beekeeping promotion in Farta and Quarit woreda. Fuel saving stoves production & Marketing in Farta woreda. Eco-green liquid fertilizer in Farta, Libo, Ebinat and Quarit. Solar lanterns in Farta, Libo, Ebinat and Quarit. Grafted fruit tree seedling Farta, Libo, Ebinat. Greenhouse vegetable production in Farta, Libo, Ebinat and Quarit. Bio-fertilizers in Farta and Ebinat. Sola Pumps in Ebinat and Libo. Bamboo products processing in Quarit.

Table 8. List of the main topics of the demonstration plots established in the program areas

2.2.5 Outcome 4: Increased commercial wood stock available after full rotation

During the inception phase the FLR program has assessed the existing plantation and woodlot establishment practices in program areas. The assessment was based on field observation, consultations and discussions with local partners, stakeholders and other specialists who have experience in the region. The assessment indicated that, most of the woodlots/plantations in Amhara are short rotation *Eucalyptus*, used for firewood, charcoal and construction. This was mainly due to farmers' preference to *Eucalyptus* as specie that gives a quick return.

Market assessment was also done by the program in Bahir Dar for selected wood and non-wood products through gathering information and data from AFE and also by interviewing suppliers/sellers.

The intention was to get an idea of what is currently marketed, which tree species has a good market value and eventually to use the information while selecting the type of tree species for FLR Program planting activities. The results of the assessment indicate that the main products sold in Bahir Dar are also derived from *Eucalyptus, and particularly Eucalyptus camaldulensis* that provides poles of different size for construction purposes.

Moreover, the information gathered in the program areas revealed the existence of another limiting factor related to the unavailability of sites for planting activities in the highlands because of the fact that farmers prefer to cultivate the available sites with crops to secure their food rather than planting trees.

Thus, the key conclusion made by the program is the concern about biodiversity and risk related to the planting of monoculture tree species. For the program, diversifying and introducing other species to improve biodiversity and provide varieties of products is of high importance and should pass by a continuous process of awareness rising among the farmers/communities. Some basic and targeted incentives seem to be also needed to motivate the local people and change their attitudes towards improving the situation.

In this perspective, and throughout the working process, the program has strongly recommended that the planting activities should be multi-culture based (Avoid monoculture and promote diversification) and should be both environmental and socioeconomic oriented. The program's implementing approach regarding the planting activities was to organize farmers in user groups. The task assigned to these user groups is planting trees by combining relevant indigenous and exotic species that are appropriate to their leaving context and providing not only environmental values such as biodiversity and reduction of land degradation but also socioeconomic opportunities.

The program has promoted 2 main types of planting activities, depending on the context, the availability of the plots and the needs expressed by the local stakeholders, i.e.:

- i. Woodlots and small scale plantations at household and community level. The purpose is to provide farmers/community with additional source for household energy, as well as additional income from sales of firewood or poles.
- ii. **Agro-forestry.** The purpose is to improve vegetation cover in some areas neighboring the community settlements through integrating multipurpose trees/shrubs into crop/grazing lands in order to get multiple benefits, including fruit trees. The used tree/shrub species on the cultivated areas are mainly for livestock feed and firewood and they are also expected to improve soil fertility. In the same objective, the program has supported the existing water and soil conservation terraces with shrubs/grasses.

To achieve the planned targets regarding the planting activities, the program has supported and accompanied the tree seedlings production in different tree nurseries located in the program area through strengthening the nurseries and providing quality seeds and covering the tree seedlings production costs as well as the related planting costs.

• Production of tree seedlings for the program's planting activities

The 2018 planting season was missed because when starting the program implementation in January/February 2018 it was too late to be able to do assessment of the situation in areas where planting could be done and at the same time identify nurseries and sign agreement with them for production of seedlings for the planting season 2018.

The planting activities have covered the 2019, 2020 and 2021 planting seasons. The planting materials production was based on agreements signed each year with Woredas' OoA in Ebinat, Libokemkem, Farta and Quarit. In addition to the seedlings production, the agreements with OoA stipulated to accompany the program in identifying the planting sites and the mobilization of the farmers/communities concerned by the planting activities in FLR Program areas. FLR Program and OoA jointly assessed the needs (Species and quantities). Most of the tree seedlings are demand-driven and composed from a combination of indigenous and introduced/exotic tree species suitable for the local context [Highland]. NFG has strongly recommended diversifying the species and promoting some of the relevant indigenous species. Regarding the tree seeds responding to the quality standards, the main supplier was the AFE Seed Center. Somme seeds are also provided through ORDA.

Planting seasons	Planned Objective (Quantity of tree seedling)	Realized Production (Tree seedlings)	Remark
2018	/	/	Inception phase
2019	Zeha tree Nursery (Ebinat Woreda)	0.86 Million	2019 planting season was characterized by a low seedlings production. This is due to the delay in launching the production process in 2018.
2020	3 Million	1.8 million	The objective was not achieved because COVID-19 circumstances have hampered the production process.
2021 (1 st no cost extension)	1.7 million	1.4 Million	The objective was not achieved because of the quality of the seeds of some species and also to the loss.
2022 (2 nd no cost extension)	0.8 million	/	The concrete production will be known by end June 2022. An assessment in the nurseries by 15 th April 2022 indicates that the production will be as planned (i.e. +/- 0.8 million)
ORDA Tissue Culture Lab.	0.046	0.04	Fruit trees (Banana, mango, avocado, papaya, etc.).
Total	5.546	4.1	Ratio Production/Objective: 73%

Table 9. FLR Program Seedlings production - Planned objectives and actual production

Despite several restrictions and unexpected situations (COVID-19, conflicts in Amhara), the program's planned objective was achieved. The overall realized planting activities represent about 1151 ha among which there're more than 214 ha planted at the Rib Dam buffer zone, located in Farta and Ebinat Woreda, which have a big value for the region, from both environmental and socioeconomic features. The rest represent woodlots, agro-forestry and trees on farm.

These planting activities will certainly allow several households to have access to additional firewood resource in the future, the program is expecting to more than 9000 beneficiaries/households. The following table illustrates the overall planting activities by Woredas, Kebeles, villages and type of plantation.



Table 8. FLR Program Seedlings production:Planned objectives and actual production

			Type of plantations										
Woreda	Kebeles	Village	Tota	Total planted area		Total planted area Private Woodlots		Agro-Forestry		Trees on Farm /Communal woodlots		Others	
			ha	No. Seedling (Million)	ha	No.	ha	No.	ha	No.	ha	No.	
Ebinat	Jeman, Deregaha, Gunaguna, Embachiko and zeha	Amistya, Serawudi and Mechena	377	1.3	95	0.3	57	0.2	200	0.7	25	0.1	
Libokem- kem	Taragedam,S hihoch, Agela, Birkute and, Shamo	Quhala, Weybeg n and Kismi	308	1.03	7	0.06	225	0.5	61	0.4	15	0.07	
Farta	Buro,Ayeva, Dengors, Teraroch, Medeb and Gubeda	Medeb, Gubeda and, ayevaniv a	97	0.5	14	0,167	49	0,123	20	0,154	14	0,056	
Quarit	Chefakit and fenegeta	Chemen and Chegode	134	0.8	12	0,13	75	0,266	41	0,379	6	0,025	
Sekela	Lijambera	/	8	0.02	/	/	6	0.0103	2	0,0097	/	/	
Y. Densa	Ayebar and semarega	/	12	0.05	/	/	0.5	0,0002	11.5	0,0498	/	/	
Ebinat & Farta	Alazar, Buro and Amstiya	/	215	0.4	/	/	/	/	215	0,4	/	/	
		Total	1151	4.1	128	0.657	412.5	1.099	550.5	2.082	60	0.251	

The following table illustrates the main tree species planted:

Main planted tree species						
Forest species/Timber oriented	Acacia spp, Cordia africana, Acacia dicurrens, Gravila robusta, Sesbania, Jacaranda, Lucniea, Mangifera indica, Spatodia nilotica, Casurina equstifola, Olea africana, Citrus cinensis, Cuperses lusitanica, Bamboo, Rhuminsprinoids.					
Fruit trees/Agro-forestry	Mango, Avocado, Banana, Lowland Bamboo, Papaya.					

• Incentive Schemes for tree planting in Amhara region

As it is already mentioned, the assessment made the program regarding the planting activities in the program areas showed that farmers/communities are used to monoculture planting and in many cases, notably in degraded contexts where there's lack of lands, high pressure on existing resources and harsh socioeconomic conditions; they even demonstrate "resistance" when it comes to tree planting, they simply prefer other agro-systems (cultivate crops, livestock, etc.) than agro-forestry. This represents a high threat because it can result in irreversible process of land degradation. Thus, there is a need to keep promoting a continuous process of awareness rising among the farmers/communities in these areas about the importance and the benefits of tree planting, but also accompany and support them with targeted incentives to motivate them and change their "passive" attitude regarding this basic Forest Landscape Restoration component (tree planting).

In this perspective, the program has worked on the assessment of existing incentive scheme for tree planting in Amhara region. Firstly the task was assigned to AFE which has organized several working sessions with local stakeholders, organizations and specialists who have experience in forest development (ORDA, KfW, etc.).

The substance of this process of discussions concerned mainly the type of incentives that could be provided to individuals/users groups to promote tree plantings. The aim was to identify and propose a set of incentives that may strengthen the self initiative of the target groups and capacitate them with appropriate knowledge and practices related to planting, management, preprocessing, Processing and marketing of the products (timber, firewood, etc).

All the gathered and available information and proposals were examined and systematized as incentive scheme report/guidelines. Before submitting this report to the local stakeholders, the program is planning to organize a special working session involving more specialists for further improvements and the ways to use it in practice (early stage of phase 2).

2.2.6 Increased capacity of implementing FLR

Awareness Rising

The promotion of forest landscape restoration in the FLR Program areas through awareness rising and training activities was a continuous process.

The program has regularly organized public meetings and working sessions involving key local stakeholders and target groups in the intervention areas.



The main focus was on farmers, men and women, as they are the main concerned group and the driving force for the restoration of the degraded areas. As a result, more than 660 of public gatherings and information meetings are organized in which took part more than 80000 people, most of them are farmers; this includes LUP activity, identification and development of bylaws for enclosures, Green Village establishment, tree planting, training activities, experience sharing etc.



Training activities

During the program's inception phase several meetings have been organized with local partners and stakeholders to assess training needs of the farmers/communities, the Development Agents and specialists. An additional assessment was also done by the NFG team through several field visits and discussions with representatives of the local stakeholders, notably from Offices of Agriculture and Farmer Training Centres. As a result a big and demand for trainings related to a variety of forest and land use subjects was expressed.

To refine such issue, and focus on thematic that are more relevant for FLR Program, a workshop involving representatives from key stakeholders at regional and local levels, representatives from Amhara Women Association and World Vision was organized by the end of the program's inception phase.

This working session allowed developing a methodology to organize and structure the activity, and also define/identify pertinent training topics to develop and conduct in the framework of FLR Program. The participants agreed that training activities for farmers and communities should be implemented through direct involvement of FTCs and DAs, due to their extensive network located close to the target groups in every Kebele and linked to the Woreda's OoA. In addition, the DAs have to get ToTs to improve teaching methods and also the substance of the training topics.

Regarding the training materials it was agreed to adopt a structure and a substance that is appropriate for the level, the needs and the expectations of each target group (farmers, specialists, etc.). As a first evaluation, FLR program noticed that there's a real lack of basic training materials for famers, and decided to put emphasis on this issue.

The following drawing illustrates the developed methodology to implement training activities.



Many partners such as ORDA, AFE, BoA. AWA and ARARI have participated in conducting courses and developing training materials. However, it is important to mention the active role played by Woreta ATVET which has developed training materials and conducted several training courses for the benefit of a number of **Development Agents and farmers** in the program areas.





It is also important to underline the role of Amhara Women Association in involving women in training activities and promoting gender-related issues in the program areas.

The FLR Program experience showed that stakeholders and target groups, at different levels, often lack the necessary skills and knowledge as well as

resources/capacities required for effective and efficient planning and implementation of program activities. The provided trainings have in a certain extent built the capacity of stakeholders and target groups and created a conscience in terms of forest landscape restoration and the necessity for rational, effective and efficient use of resources, and this will definitely contribute to the sustainability of the program activities.

The program gave priority to the training and development of training materials for farmers, men and women, to promote relevant practices related to forest and land use practices appropriates to the local needs and context.

However, the experience proved that some of the developed training materials such as leaflets and posters are not reaching out to all farmers because almost all the farmers cannot read and write. Therefore, for more effectiveness, the program believe that it is fundamental to develop new and innovative means to transmit information and skills to the farmers, such as short and informative movies, documentaries and animations on FLR and other relevant topics related to forest and land use practices.

This issue has been discussed with the Development Agents and FTC's trainers during farmers meetings and training courses. Knowing that performing such methods in the FTCs need a minimum of working conditions and equipment, the program has put efforts on maintaining and rehabilitating the FTCs and equipping them with some basic equipment and tools such as Solar Home Systems (SHS) which will guarantee basic functioning/operational conditions in the FTCs when conducting courses and promoting innovative practices and skills for the benefit of both farmers and trainers.

Despite the unexpected constraints and limiting factors faced during the working process (COVID-19, conflicts in Amhara region) the FLR Program managed to achieve significant results in terms of training activities. The following table synthesizes the main achieved results.

No. of training courses and manuals developed	33
No. of trainers trained in FLR (DAs)	288
No. of trainers conducting a course	50
No. of farmers trained	7738

• School children component

Preliminary work has been done during the program's inception phase to sensitise the program's partners and stakeholders regarding FLR Program objective for teachers and school children activities in the program areas, i.e.: development of environmental education training materials (EETM).

In this course of action, several schools were visited. Most of the visited schools present serious lacks facilities, regarding equipments and teaching materials. To structure, identify and agree upon methods and topics for content of the EETM, several working sessions, involving teachers



from schools located in the program areas and representatives from Bureau of Education (BoE) were organized to discuss possibilities to improve and promote environmental education at school level, notably through developing appropriate teaching methodologies and materials.

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Consequently, the program, jointly with the BoE and Forest Extension Institute in Norway, member of NFG, has developed materials on environmental education for the schools.

The program has organized training sessions for teachers from different schools in Ebinat, Libokemkem and Quarit Woredas (36 teachers from 12 schools). The objective was to accompany the trained teachers to conduct targeted courses/trainings for the benefit of the school children using the developed materials.





The COVID-12 restrictions have hampered the organization of trainings for the school children; the schools were closed for a long period, and it was not convenient for the program to accomplish this activity during the main program However, period. the program put efforts on this activity during the 1st no cost extension period (2021). As a result more than 8000 pupils have participated in the courses using the developed training This materials. would capacitate both teachers and school children with

useful knowledge and practices about environment. Such activity has not been conducted in the rural areas in Amhara before. The program has also discussed this activity with Amhara Environment, Forest and Wildlife Development and Protection Authority which expressed its interest in promoting this subject together with the Bureau of Education.

2.3 Specific Values of the Achieved Results

Among the factors that contributed to lead the program to outputs it is important to mention the following:

- Efficient planning and implementation methodologies/approaches and procedures applied by the program (2 complementary planning methodologies, i.e. FLR-Based LUP and enclosures; participatory approach; diversification of the partners/stakeholders, etc.).
- Promotion of community-based FLR interventions, which are based on combination of ecological/environmental-oriented actions, and socioeconomic incentives that encourage the self-initiative and the sense of ownership among the local people/farmers (Green Villages).
- Introduction of appropriate FLR practices suitable for the local context through demonstration activities and targeted capacity building, training and experience sharing activities.

Consequently, there're many specific values that can be attributed to the achieved results, i.e.:

- Mapping and planning of areas suitable for restoration
 - **The scale:** The scale of identifying/mapping done in a quite short period is exceeding what has been done in Amhara region so far!
- Restoration by establishing enclosures
 - Promote new perceptions regarding the management and the follow up of the activities in the established enclosures: The program has launched discussions and started structuring practical ideas with OoA to improve the management of enclosures through switching from management based on bylaws (perceptions of the farmers/communities) to management based on more substantial planning taking into consideration the diversity of perceptions, objectives, expertise and responsibilities (Enclosure Management Plans). This will be a further step towards the sustainability of enclosure-based restoration activities. This is not been done in Amhara before.
- Restoration at Village Level
 - The Green Village Concept: This concept combining tree-based restoration and socioeconomic incentives is promoted by FLR Program as a practical approach to landscape restoration is not implemented in Amhara before. Even if this restoration method is still under development and needs improvements, share of experience and in depth evaluation of the cost effectiveness, the activities already implemented in the program areas already show some impact tangible results that motivate and mobilize the local farmers/communities and promote their self-initiative to improve their livelihood and their living environment.

- Training and capacity building
 - Support to the training facilities at local level: The main target groups for the training activities are farmers, Development Agents and Trainers of the Farmers Training Centers. All these target groups are located at village, Kebele and Woreda level. The program experience shows that there's a lack of the necessary skills, knowledge, training materials as well as basic conditions (facilities, resources, equipment) necessary for effective and efficient development and performance of the training courses. Thus, from the early stages of the working process, the program has put efforts on maintaining and rehabilitating the FTCs and equipping them with rudimentary equipment/tools that will guarantee basic functioning/operational conditions in the FTCs when conducting courses and promoting innovative practices and skills for the benefit of both trainers and trainees.
 - The Environmental Education for school children: This will capacitate the school children with useful knowledge and practices about their living environment. Such program has not been conducted in Amhara before.

CHAPTER 3: SUSTAINABILITY OF THE ACHIEVED RESULTS

Sustainability is the continuation of a program to provide benefits to its beneficiaries even after it is completed. Considering the specificity of the context, the type of interventions and the achieved results, the following FLR Program aspects are expected to be sustainable.

• Approaches/Methods applied by the program

Before being implemented, all the applied approaches/methods and the introduced practices are assessed and shared with the key local stakeholders, including the target groups/beneficiaries, to verify their relevance and adaptability to the local context and priorities as well as to the program's objectives. This collaborative process will certainly lead to ownership, self-initiative, strengthening and scaling up of the relevant outcomes/achievements.

• Restoration activities at village level

The application of the Green Village concept through a combination of tree-based restoration activities, socio-economic incentives and also establishment, maintenance and rehabilitation of basic facilities have allowed an active mobilization of the local people and created a working dynamic and acceptance of such activities. The local people showed willingness and enthusiasm to participate and take self-initiatives that would promote such activities. It is important to notice that farmers living in the adjacent territories of the established Green Villages have also showed a big interest in applying the same activities in their own villages.

Evidently, and because of the difficult socioeconomic conditions in these areas, just few of them could promote such activities (They also need support...) but, anyhow, this is a good indication that such FLR Program approach is tending towards sustainability, notably if it will be more developed/improved and scaled up in similar contexts.

• Planting activities

The FLR Program objective behind the established planting activities goes beyond reducing the degradation of some of the intervention areas and providing the local population with more access to firewood and construction materials. The aim is also to introduce a new way of thinking/acting based on the perception of "integration" and "diversification", in terms of the type of plantations (Woodlots, agroforestry, trees on farm, etc.) and species, exotic and indigenous.

Through a continuous process of awareness rising among the local people, the program has, to some extent, succeeded in facing local people's "resistance" and reaches some flexibility in attitudes regarding this issue. This was not an easy task, but the persistent efforts gave tangible results. This started with the strengthening of the tree nurseries (infrastructure, management, practices, etc.), the demonstration activities to improve the production and the productivity of the planting materials and also the selection and the introduction of quality seeds to produce quality seedlings. Such a process has provided relevant technical effects and also socioeconomic impact in the program areas, notably job opportunities for men and women.

Furthermore, and considering the value of some sites notably from environmental aspect; the program, together with the local key local stakeholders took initiatives to establish and promote planting activities having important environmental perspective as it's the case of the protection of the Rib Dam Buffer Zone.

All these complementary activities, which are the foundation for any tree-based restoration, have found consent from the local people/stakeholders, and this is a good indication for sustainability.

• Capacity building and training activities

The provided trainings in the framework of the FLR Program have, to a certain extent, built the capacity of the stakeholders, notably those sited at local level (Woredas, Kebeles, villages) and created a degree of conscience in terms of forest landscape restoration and the necessity for rational, effective and efficient use of resources. This will certainly contribute to the sustainability of the program activities.

In addition, the training of the main target groups, i.e. farmers, Development Agents and trainers of the FTCs is an important component for the sustainability of FLR interventions, and should be a continuous process. The basic facilities for the promotion of such activity are the FTCs. By being aware that the FTCs needs basic organizational and working conditions and equipment, the program has put efforts on maintaining/rehabilitating and equipping many FTCs in the program areas with simple equipment and tools that will guarantee better functioning and operational conditions when conducting courses and/or demonstrating useful practices and skills for the benefit of both farmers and trainers. This is definitely an important aspect of sustainability.

Also, the environmental education materials developed by the program to capacitate teachers and school children found a good resonance among the concerned institutions (BoE, AEFWPA) which have expressed their interest in following up, improving and propagating the approach and the materials in other areas. This is also a good indicator of sustainability.

• Women participation/involvement

Despite the cultural restrictions faced in some intervention areas, the program kept promoting the gender issue through involving women in activities notably those related to training and socioeconomic aspects (livelihood incentives). To give a strong foundation for this issue, the program has established a fruitful partnership with the biggest women organization in the region, i.e. Amhara Women Association. Such partnership opened options for the program and also perspectives for AWA to support rural women through capacity building, awareness rising and socioeconomic activities related to natural resource management. This may also be a potential factor of sustainability.

CONCLUSION/LESSONS LERANED

The FLR program has applied relevant planning and implementing approaches, practices and activities related to forest landscape restoration in the highlands of Amhara region.

Despite the constraints and challenges faced, the FLR Program has achieved tangible results appreciated by the local stakeholders, including the main target group, i.e. farmers/communities.

To ensure that these results will lead to long-term impact and sustainability it is important not only to improve and promote them in the same areas but scale up them to other contexts through adapting the methodologies and interventions.

Lessons learned

The FLR Program can underline the following conclusions from the working process, i.e.:

- A need for FLR in Amhara: Sever degradation notably in the highlands. Thus, it's fundamental to join efforts, resources and means between government agencies, NGOs and other organizations/institutions acting in the sphere of FLR.
- Unavailability of large-scale sites for tree-based restoration/planting activities: The challenge in the highlands of Amhara region is that all land categories are cultivated, but there's also a "resistance" from the local farmers/communities when it comes to implement tree-based FLR. Thus, it is necessary to find out/develop alternative solutions. One of the alternatives could be the restoration at village level through improving and promoting the Green Village activity.

The FLR Program has established 8 Green villages in different Woredas. The interventions in these villages have covered a range of activities, including tree-based and enclosure-based restoration, improved land use practices and climate smart agriculture and also livelihood activities. However, it's important to underline that, the Green Village approach has to be considered as a "method under development" that needs more time to prove its efficiency, and requires further improvements and share of experiences, practices and ideas with other development programs acting in the same sphere of activities (SLMP, REDD+) and those which have been applying similar concepts in the country (e.g. Development Fund Program). This must be accompanied with in depth cost-effective analysis and sustainability effectiveness.

This is what NFG is planning to work with and promote during the phase 2 of the FLR Program. By doing so, the program will have more constructive evaluation about the activities to be promoted and the lacks to be adjusted. All the outcomes of this participatory process will be developed and systematized in guidelines that will serve as entry point for scaling up the Green Village method as an integrated element of FLR activities.

Need for improvements in enclosure-based restoration management: During phase I, the FLR
Program, in close cooperation with local stakeholders and local farmers/communities, has
identified and mapped a large area of enclosures and developed a number of bylaws that serve
as management rules for these enclosures.

Evidently, this is an important step towards restoring the degraded forest landscapes in the Amhara region. However, the experience and the lessons learned from other development programs applying similar approach revealed that, in some cases, this indicate that the the sustainability of the interventions can be further improved. The fact is that, despite the commitment made by the local people/community who signed the bylaws, there're many challenges that could hamper and weaken the effectiveness of the restoration process in these areas. NFG and the local stakeholders has discussed this issue and agreed on the necessity to introduce new elements capable to promote the sustainability of enclosure-based restoration.

During the phase 2, the FLR Program will keep working in the areas where bylaws are developed and will take the initiative in developing, implementing and promoting new management tools and practices to support the restoration process in the identified enclosures, i.e.: Initiate and develop participatory Enclosure Management Plans (PEMP) that have to be based not only on the needs and perceptions of the farmers/communities, but also integrate the perceptions of other stakeholders, other relevant FLR practices and sharing of responsibilities.

Another important aspect for promoting effective and sustainable enclosure-based restoration was raised by the local stakeholders and programs working in the sphere of FLR, i.e.: formalization of land use rights/ownership of farmers/communities.

There's a broad consensus that this aspect would contribute to sustainable forest/land management and improvement of livelihoods in the degraded areas. Thus, this issue should be clarified, notably when it comes to restoration interventions affecting large areas and a substantial number of land users/communities as it's the case of enclosure-based restoration.

Nevertheless, it's important to underline that formalizing people/community use rights/ownership is not an easy task and it requires passing through an extensive process. In some cases, even though the procedures are in place, there could be always many limiting factors (political, social, etc.). Therefore, the entry point should be always the clarification of the regulations, the procedures and the status regarding this issue. To this end, all the key stakeholders and institutions should be involved to discuss, agree and define the steps to carry out towards achieving this condition for the sustainability of FLR interventions. This process will be initiated by FLR Program during phase 2.

Before the end of the FLR Program period (30 April 2022), it was planned to conclude the working process with a "Lessons Learned Workshop". This workshop is intended to identify, document and share experiences, successful and challenging, i.e.: What went well, what could be better, what was challenging and the ways to keep promoting productive and effective FLR-related approaches, practices and activities.

The FLR Program invited different stakeholders at different levels (National, regional and local levels) to participate in the workshop to share experiences on previous and ongoing forest landscape restoration initiatives in the region and establish a basis for further cooperation. Unfortunately, the workshop was postponed due to the unavailability of some important partners for the scheduled date (Woredas Offices of agriculture/OoA). Thus, it was agreed to reschedule the workshop for the beginning of the program's second phase.

ANNEXES

No.	Designation
Annex 1.	FLR Program achieved results correlated to the Results Framework
Annex 2.	Green Village Concept Memo
Annex 3.	PMU Financial Management Memo