ENHANCING COMMUNITY-LED RESTORATION AND LIVELIHOODS IMPROVEMENT IN AND AROUND DUNDORI FOREST

END OF PROJECT EVALUATION REPORT

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Submitted on

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ACRONYMS

CBO	Community Based Organization
CFA	Community Forest Association
DAC	Development Assistance Committee
FGD	Focus Group Discussion
FOC	Framework of Cooperation
ITF	International Tree Foundation
KFS	Kenya Forest Service
KII	Key Informant Interview
NTFPs	Non-Timber Forest Products
OECD	Organisation for Economic Cooperation and Development
SHG	Self Help Group
ToC	Theory of Change

EXECUTIVE SUMMARY

Introduction

The "Enhancing Community-Led Restoration and Livelihoods Improvement in and around Dundori Forest" project, implemented by Wezesha Community-Based Organization (CBO) with funding from the International Tree Foundation (ITF), and support from Kenya Forest Service (KFS), and the Dundori Community Forest Association (CFA), aimed at restoring degraded forest areas in Dundori Forest and improve the livelihoods of adjacent communities. This evaluation assesses the project's socio-economic and environmental impacts, effectiveness, and sustainability, providing critical insights for accountability, learning, and future project planning for replication and upscale.

Project Background

Deforestation is single-handedly the biggest threat to global forests, Kenya notwithstanding. With the country losing forests at least 1900 hectares per year for the last 20 years, the country's forest resources are under severe threat. The Mau Forest, Kenya's biggest forest, is a forest under siege and perhaps a portrayal of Kenyan forests' future. The Mau Forest is more than just trees. It in calculates the relationships, processes and ecosystems that stabilizes the lives of millions of Kenyans and supports Kenya's effort of economic and social development. Protecting the Mau is protecting the Kenyan legacy[1].

Dundori Forest, is crucial watershed in Nakuru County, faced severe degradation due to encroachment, over-exploitation, and poor land-use practices. The project, initiated in April 2022, focused on tree planting, community training, and promoting alternative livelihood strategies. The overarching goal was to engage forest-adjacent communities in conserving and restoring ecosystems, enhancing food security, and increasing resilience to climate change.

Evaluation Objectives and Methodology

The evaluation aimed to:

a) Assess the project's impact on biodiversity, land stabilization, and ecosystem services.
b) Evaluate the project's influence on the livelihoods of women, youth, and other community groups.
c) Determine the extent of benefits gained by women in natural resource management.
d) Assess the capacity building of local organizations.
e) Examine the project's impact on students' environmental attitudes.
f) Ensure the sustainability of project outcomes.

Using the OECD DAC evaluation criteria, the evaluation incorporated data from Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), and structured observations.

Key Findings

[1] https://storymaps.arcgis.com/stories/823afeb257ba4fc384643bacbca6d260

Biodiversity and Ecosystem Stability: The project successfully restored about 75 hectares of degraded forest land, planting approximately 181, 500 trees from over 11 indigenous species including *Croton megalocarpus, Makhamia lutea, Prunus africana, Dombea torrida, Olea africana, Juniperus procera, Syzygium guineense, Ekerbegia capensis, popocarpus falcatus, warbughia ugandensis* and *Cordia africana*. These indigenous tree species offer varied social cultural, environmental and economic benefits to local communities including source of medicine, animal fodder, bee nectar, fruits and fuelwood.

Integration of different threatened and endangered indigenous tree species has contributed to increased biodiversity and improved ecosystem stability in the restored sites

Employment, Income, and Livelihoods: The project provided significant employment opportunities to local community members. Directly, the project engaged hundreds community members including men, women, youth and people living with disabilities in site preparation, seedlings transportation, planting and post planting maintenance activities. The project also engaged hundreds of farmers in agroforestry as direct beneficiaries through materials and tools support as well aa technical support.

The project also supported local tree nurseries to produce over 200,000 tree seedlings that were absorbed by the project as well as sale to local market. This provided alternative income sources thereby cushioning household economies and reducing dependence on forest resources.

Beneficiary Success Stories: Beneficiaries reported enhanced livelihoods and a sense of ownership and responsibility towards forest conservation. This is due to ITF community led approach that places community involvement at the center of project design, development, implementation and monitoring and evaluation.

Unexpected Effects: Positive effects included improved community household health and hygiene due to access to soaps, reduced idleness among youth leading to decreased alcohol abuse, and enhanced livelihoods for women, contributing to happier family dynamics. Additionally, the project spurred the formation of self-help groups, enhancing social cohesion and support.

Conclusions

The project demonstrated effectiveness and efficiency, achieving significant restoration and livelihood improvement outcomes with limited resources. The project's alignment with community needs and priorities and strong local engagement ensured its relevance and impact. However, the sustainability of certain functions, such as local monitoring and reporting by community scouts, requires ongoing support including trainings and provision of tools.

Strategic Recommendations

a) Increase the frequency of environmental education and awareness, especially targeting younger students in schools.
b) Enhance capacity-building initiatives for CFAs, Scouts, SHGs and CBO.

c) Establish a structured local monitoring system involving local scouts and community members.
d) Diversify and scale up alternative livelihood programs like agro-ecology and conservation agriculture
e) Foster local governance structures among self-help groups.
f) Secure funding for ongoing coordination of project activities.
g) Develop comprehensive climate adaptation plans.

This evaluation was conducted by Dr. Jesca Kinoti and Leon Mawa, on behalf of WEZESHA CBO, who are highly experienced and knowledgeable experts in this field. Dr. Jesca Kinoti has extensive experience in research and analysis, particularly in the area of environmental sustainability, while Leon Mawa has a strong background in project management and implementation. Both individuals have a proven track record of delivering high-quality work in similar projects and have garnered recognition for their expertise in this domain.

1. INTRODUCTION

1.1. Project Background

Dundori Forest is part of the Eastern Mau, (mainly found within Nakuru County and only a small section extends to Narok County) one of the two largest blocks that make up the great Mau Forest Complex Covering 155,087 ha[2]

It is situated in the Southern part of Nakuru North Subcounty, Nakuru County, Kenya The forest borders Nyandarua County to the East, whose residents thus form part of the forest adjacent community. It's located about 20km east of Nakuru town and lies between 0.10 and 0.16 latitude and 36 10 and 36 16 longitudes. The highest point is along the boundary of the Rift valley province and central province. Covering an area of 3,609.3 hectares, excluding the settled and degazetted regions, Dundori Forest is a crucial watershed for several rivers. These include the River Mbaruku and Mereroni, which flow into Lake Elementaita, and the Ngosur River and Crater Stream, which drain into Lake Nakuru. Additionally, the Chania and Ruiru streams, tributaries of the Olobonata River, lead into the Olpunyata swamp west of Solai.[3]The forest is divided into two blocks namely Dundori and Kendurum which are further subdivided into five beats namely Wanyororo, Maculata, Centre, Kabatini, and Station.

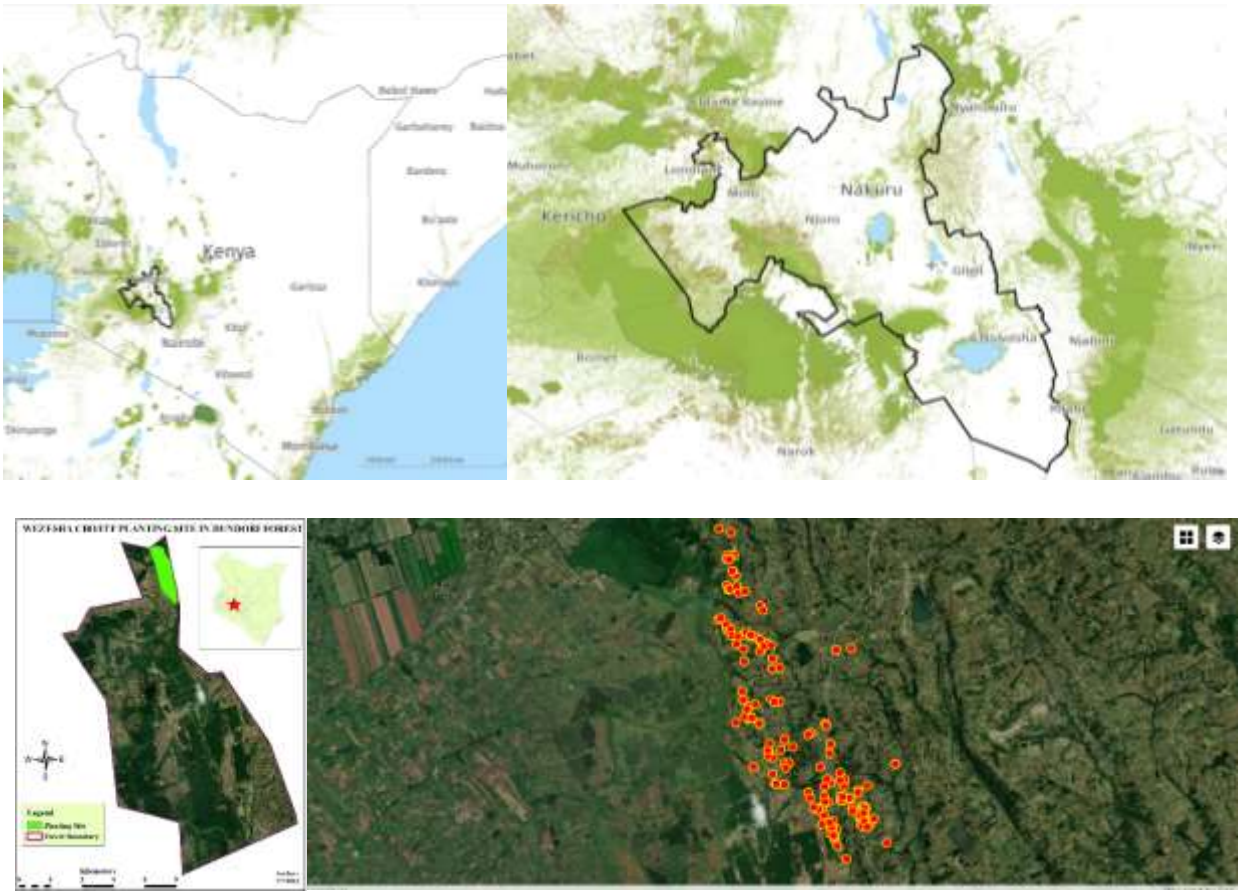


Figure 1: Location of Dundori Forest in Nakuru County

[2] Kenya Water Tower Agency. Status Report for Eastern Mau- revised, 2020
[3] ITF. Dundori Forest Baseline Report, 2022

The forest faces severe degradation due to various challenges such as Encroachment into the gazetted forest and riparian areas due to lack of clear demarcation and fencing of boundary coupled with rapid population growth in the area, Land degradation due to unsustainable land management practices, Frequent forest fires, Human wildlife conflicts, Political interference, Mismanagement of forest plantations, Landownership issues[4], over-exploitation of resources, rapid population growth, and poverty in adjacent areas. These issues have resulted in increased dependence on forest resources, inadequate institutional capacity for management, poor land-use practices, and insufficient financial resources for restoration activities. Consequently, the forest has suffered biodiversity loss, compromised ecosystem services, unsustainable practices, reduced ecosystem and community resilience, and limited capacity to mitigate and adapt to climate change.

In response to these challenges, International Tree Foundation (ITF) in partnership with Wezesha, a local CBO has been implementing a landscape restoration project in Dundori Forest and its adjacent areas since April 2022 in collaboration with Kenya Forest Service (KFS), and the Community Forest Association (CFA). This project includes tree planting in degraded community forest lands, schools and institutions, diverse community training, and initiatives aimed at empowering local communities to protect the restored forest and adopt alternative livelihood strategies. Additionally, the project incorporates fruit and agroforestry trees, installation of energy-efficient cookstoves, capacity building on sustainable land management to enhance smallholder farm productivity, improve household food security food security and resilience, and reduce pressure on the forest.

1.2. Project Objectives

The overarching goal is to engage forest-adjacent communities and educational institutions in conserving and restoring natural ecosystems, securing food production, improving livelihoods, and increasing resilience to climate change.

The expected outcomes of the project were

Outcome 1:	Increased biodiversity in Dundori forest
Outcome 2:	Improved livelihoods due to higher agricultural production and incomes and resilience to the effects of climate change for the local communities.
Outcome 3:	Increased knowledge of environmental conservation and practices among pupils students and communities
Outcome 4:	Increased local community participation in environmental decision making and advocating for conservation as well as rehabilitation of the degraded areas in Nakuru County.

[4] Kenya Water Tower Agency. Status Report for Eastern Mau- revised, 2020.

1.3. Purpose of the Evaluation

The overall purpose of this evaluation was to comprehensively assess the socio-economic impacts and effectiveness of the "Enhancing Community-Led Restoration and Livelihoods Improvement in and Around Dundori Forest" project. This includes evaluating the project's contributions to biodiversity enhancement, land stabilization, and ecosystem services, as well as its impact on the livelihoods of various community groups such as women, youth, and scouts.

Additionally, the evaluation aims to determine the extent of benefits gained by women in natural resource management, assess the capacity building of local organizations, examine the influence on students' environmental attitudes, and ensure the sustainability of project outcomes. Ultimately, the findings will provide critical insights for accountability, learning, and future project planning.

1.4. Objectives of the Evaluation

The objectives of the evaluation include:

1. To assess community perspective of the impact of the project on improving biodiversity, land stabilization and ecosystem services.
2. To ascertain the impact of the project on livelihoods of women, youth, scouts and the community including but not limited to acquisition of fuel-efficient stoves, skills gained through trainings, Agroforestry and fruit trees grown on farm, tree nursery establishment/expansion, and any benefits from restoration/tree planting activities.
3. To assess the nature and extent to which women have benefited from natural resources and leadership related to natural resource management due to the project.
4. To evaluate the impact of the project on the CFA's and local community capacity to effectively implement community-led restoration and livelihood improvement initiatives
5. To assess the effect of tree growing in schools on student attitude, perception and commitment to natural resource management.
6. To assess the sustainability of the project outcomes and document important lessons.

1.5. Scope of the Evaluation

The evaluation scope was guided the OECD DAC evaluation criteria, namely: relevance, effectiveness, efficiency, impact and sustainability.

2. APPROACH & METHODOLOGY

The evaluation employed qualitative methods, including desk reviews of project documents and reports, focus group discussions, key informant interviews, and field observations that provided sufficient understanding of the project's design, interventions, achievements, challenges, and lessons learned.

2.1. Study Location & Target Respondents

The evaluation study was conducted with target respondents of various categories in the project location in Nakuru North Sub-County - Dundori in Nakuru County. The following respondents were interviewed qualitatively from across the project's geographical spread and with diverse target groups (Table 1). In total, 6 FGDs and 9 KIIs were conducted with 90 respondents, female participants presenting over 58 percent of total respondents, and youths contributing 41 percent.

Table 1: Respondent Categories and Sample Sizes

Group	Method of Data Collection	No. of Participants	M	F	Youth
Community Members	2 FGDs	12	4	8	4
Self Help Groups	2 FGDs	12	0	12	2
Community Forest Association	1 FGD	6	3	3	0
Nursery Operators	1 FGD	6	2	4	2
Scouts	1 FGD	6	3	3	0
Local Community Leaders (Area Chiefs)	2 KIIs	2	1	1	0
Kenya Forest Service	1 KIIs	1	1	0	0
Project Staff	3 KIIs	3	0	3	0
School Principals	3 KIIs	3	2	1	0
School Children (2 primary schools, 1 secondary school)	3 FGDs	45	25	20	29
TOTAL	**10 FGDs, 9 KIIs**	**90**	**38**	**52**	**37**

2.2. Data Collection Methods, Tools and Administration

Systematic desk review of existing project documents was conducted prior to the evaluation exercise. This was later followed by drafting of qualitative focus group discussion guides for various intervention groups. Key informant interview guides were also drafted for data collection with key stakeholders from across the target respondents. The data collection tools and questions were crafted in line with the ITF evaluation objectives, and the development assistance criteria (DAC) questions for evaluation of development projects.

Maintenance of data quality was ensured throughout the process by observing careful administration of the data collection tools to respondents using expert experience and judgement,

and involving skillful probing where it necessitated. The key informant interviews and focus group discussions were directly conducted by the evaluation consultants.

Figure 2: FGD with students at a school garden.

2.3. Data Analysis, interpretation and reporting

Prior to data analysis, the interviews and focus group discussions data were transcribed into written notes which were later thematically coded, and analyzed using content, contribution and attribution techniques.

Following the DAC criteria guidelines and the objectives of the projectevaluation, the data was synthesized from across the various transcripts as findings of the evaluation and reported.

3. EVALUATION FINDINGS

3.1. Relevance

Alignment of Project Design and Objectives with Community Needs and Priorities:

The design and objectives of the Project demonstrated a significant alignment with the needs and priorities of the community, especially in terms of forest restoration and livelihoods. Over the years, Dundori forest has experienced unprecedented deforestation especially in the conservation natural forests. This has led to conservation efforts from various actors including KFS, Private sector and community through the Participatory Forest Management Plans (PFMPs)

In the commercial plantations, the government uses the Plantation Establishment and Livelihood Improvement Scheme (PELIS) programme to establish commercial plantations with exotic trees mainly *Cupressus lusitanica, Pinus patula* and *Eucalyptys spp.*

PELIS is a Kenyan government scheme recognized under the Forest Act (2005) and managed by the Kenya Forest Service (KFS). It is a modified form of non-residential cultivation that was

practiced in earlier years in Kenya as a method of plantation establishment. PELIS was initiated with the objectives of fully rehabilitating and protecting the forest and improving the livelihood of the forest adjacent communities. The introduction of PELIS started in 2008 in some forest zones and is to be continued in other forest stations. More arable land would also be available on short term rotational basis[5]

Under the Plantation Establishment and Livelihood Improvement Scheme (PELIS) Kenya Forest Service (KFS) allows forest adjacent community, through community forest associations the right to cultivate agricultural crops during the early stages of forest plantation establishment. Cultivation is often allowed to continue for 3 to 4 years until tree canopy closes. PELIS scheme is meant to improve economic gains of participating farmers while ensuring success of planted trees. Plantation Establishment and Livelihood Improvement Scheme (PELIS) has been used to establish forest plantations in Kenya since 2007. PELIS was first rolled out in 24 forest stations in Mau, North Rift, Central and Eastern conservancies

This system provided the following benefits: Farmers receive economic gain through sale of farm produce; contribution of PELIS to the economy is in the range of Ksh. 14 billion; implementation of PELIS through Community Forest Associations (CFAs) has been successful due to their governance structures and joint agreements with KFS; raising plantation under PELIS is cost effective; PELIS can play a major role in ensuring national food security[6]

The community members through CFA produces seedlings to be planted in the forest based on agreement between CFA and KFS This dual-purpose approach of integrating forest conservation with livelihood activities was well-received by the community.

In the ITF Project, communities were engaged to produce indigenous tree seedlings that were used to rehabilitate over 75 hectares of degraded forest sites in Dundori Forest. Tree nurseries that are owned and managed by youth, women and men were engaged to supply tree nurseries and compensated for trees supplied. The project did not only provide a market for their seedlings but also empowered them economically.

Additionally, the project through the ITF-KFS-CFA tri partite partnership allowed community members to acquire half-acre forest plots to cultivate short term crops such as potatoes, cabbages, beans, peas and carrots to enhance their food and nutrition security as they tendered for tree planted in respective plots. This approach ensured that the community's immediate economic needs were met while promoting long-term environmental conservation.

[5] Odwori, P. O. Alleviating Food Insecurity and Landlessness through Plantation Establishment and Livelihood Improvement Scheme (PELIS) in Kenya, *2017*

[6] J Kagombe. Contribution of PELIS in increasing tree cover and community livelihoods in Kenya, KEFRI,2014

Figure 3: Top, Sample community nursery that supplies seedlings to the project and Bottom, PELIS Programme in project site.

During the focus group discussions, participants from Community Forest Association members (CFA), Women Self Help Groups (SHG), Scouts and Community members highlighted that the project's goals matched their needs, particularly in forest restoration and livelihood improvement.

The baseline report conducted before project inception indicated that 74.5% of the households were using the traditional three stone cooking method.[7] Introduction of energy saving technologies was aimed at accelerating shift from the traditional method to better energy efficient technologies. The community appreciated the introduction of energy-saving jikos (fixed rocket stoves), which significantly reduce their daily firewood use firewood by over 40% compared to traditional three stone cooking method that is inefficient and poses serious health problems to household particularly women and children. thereby alleviating pressure on forest resources. A respondent recalled,

> *'I remember during one of the trainings one person who had bought firewood heaped in his compound to last for three (3) weeks was told that with use of energy saving jikos, the firewood will cover six (6) months which made sense to community members present.*

[7] ITF. Enhancing Community Led Restoration and Livelihoods Improvement- Baseline Survey Report. 2022

Clarity and Logic of Activities and Objectives in Leading to Desired Outcomes

The activities and objectives of the Project were clear and logically structured to lead to the desired outcomes. The project aimed to integrate tree planting with livelihood activities to create a sustainable impact. By providing seedlings and encouraging the establishment of tree nurseries, the project promoted economic activities that were directly linked to forest conservation efforts.

Key informants noted that the project included educational components on the importance of tree conservation and the benefits of using energy-saving technologies. This education was crucial in shifting the community's mindset and practices towards more sustainable behaviors. For instance, the project provided seeds for planting of various species on individual farms, including for wood fuel, which diverted attention from forest exploitation to sustainable farming practices.

The project trained and engaged community members in the constructing of energy-saving jikos through provision of paid labour. This not only reduced significantly the community's firewood consumption in order to conserve forest resources but also led to economic savings for the community members, as they spent less on fuel.

Two (2) people out of the six (6) FGD members reported to have been trained and were already earning income from the acquired skill. The further narrated that after the training, the project engaged them to make Jikos for community funded by project and were paid for labor, one member reported that he had already made three (3) Jikos which he earned from beyond the project engagement.

'The community was trained on making energy saving jiko, In each group, 3 people were trained for 3 days, skills that were acquired are transferable to other community, we were trained by people from Muranga, six members came as trainers, these Jikos' are only available at Muranga'

FGD participants from Kamuyu

Figure 4: Energy efficient fixed double pot rocket stoves installed in the community

Community was engaged in paid labour during planting of trees and for continued services such as those rendered by scouts in overseeing the farms to ensure safety and care of trees. The training on alternative income generating activities, such as liquid soup making, financial literacy and general household economy, contributed to more household income among the women self-help group (SHG) members, in anticipation that there will be less dependency on the forest for survival.

Furthermore, regular monitoring by the Kenya Forest Service (KFS) and CFA ensured that the planted trees were well-tended and that community activities were aligned with conservation goals.

Adjustments to Project Design Based on Community Feedback or Changing Conditions

The Project exhibited flexibility in its design by incorporating community feedback and adapting to changing conditions. Frequent meetings were conducted with communities to communicate project objectives and progress, collect community feedback and develop local solutions to emerging issues. For example, when issues arose regarding the use of chemicals in farming, the project brought in experts to educate the community on safe practices. Despite some initial resistance, continued dialogue and intervention from KFS led to improved farming practices to ensure environmental safety.

Moreover, during the implementation phase, adjustments were made to accommodate operational challenges. For instance, delays in rainfall required rescheduling of planting activities. These adjustments were crucial in maintaining the project's momentum and ensuring the achievement of its objectives despite unforeseen challenges.

The project demonstrated flexibility and responsiveness to the community's needs, which enhanced its relevance and effectiveness. By adjusting activities based on community feedback, the project team ensured that the interventions were practical and met the evolving needs of the beneficiaries.

> *"When we highlighted the need for more training on agroforestry, the project team quickly organized additional sessions to address our needs," A* community elder, showing the project's responsiveness.

> *"We appreciate that the project team listens to us and makes adjustments based on our feedback,"* A woman from a self-help group, emphasizing the project's adaptability.

In the focus group discussions, community members expressed that the project's responsiveness to their needs and the adjustments made based on their feedback were vital in its success. They felt that the project's ability to listen and adapt reinforced their sense of ownership and commitment to the project's goals.

Therefore, the Project's design, clarity of activities, and adaptability significantly contributed to its relevance and eventual effectiveness in addressing both environmental and economic needs of the community. The comprehensive involvement of various stakeholders, including community members, KFS, local administration and County government of Nakuru ensured a holistic approach to forest restoration and livelihood improvement.

Figure 5: Partnership with KFS who provided technical expertise in seedlings production and also logistical support in seedlings transportation

Assessment of the Project Theory of Change:

The Project Theory of Change (ToC) is aligned with current ITF strategy and Theory of Change built around the dual objectives of sustainable forest management and the improvement of community livelihoods. The project aims to restore the Dundori Forest and enhance the socio-economic status of the surrounding communities through a series of targeted interventions.

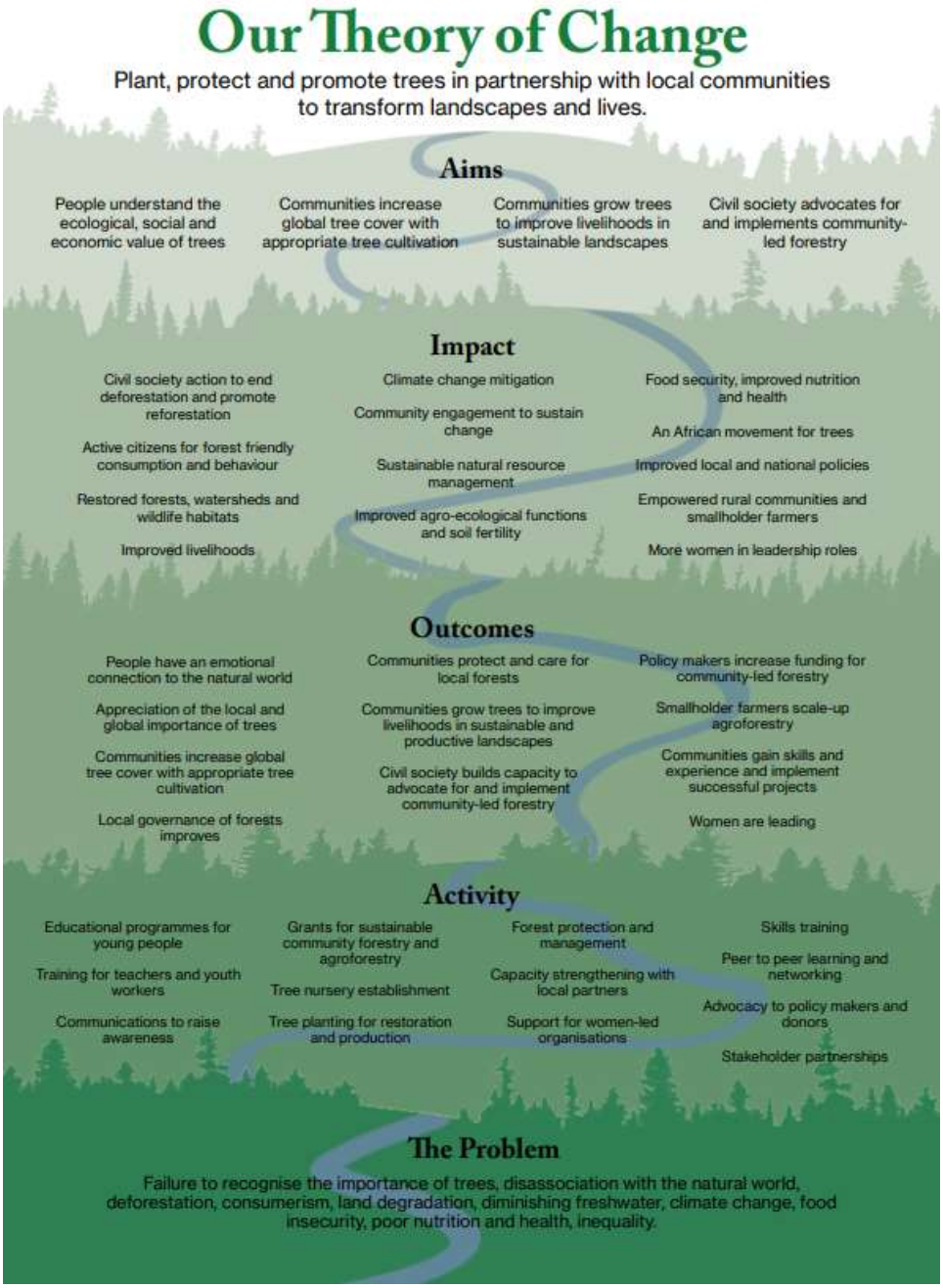


Figure 6: ITF Theory of Change[8]

The evaluation examined the strengths and areas for improvement of the project ToC:

[8] https://issuu.com/internationaltreefoundation/docs/our_strategy_2022

Strengths of the ToC

a) **Clear Objectives and Logical Framework:** The project's ToC has clear objectives that align with both environmental and socio-economic goals. The logical flow from inputs to long-term outcomes provided a coherent framework for understanding how activities would lead to desired changes. For instance, the provision of high-quality seedlings and energy-saving jikos directly addressed both reforestation goals and the reduction of pressure on forest resources as well as contribute to social economic improvement of target communities.
b) **Community-Centric Approach:** The project design emphasized community involvement and ownership, which is critical for the sustainability of its interventions. Activities such as educational workshops, training sessions, and community forums ensured that the community was not only a beneficiary but also a key stakeholder in the project.
c) **Holistic Interventions:** The project's activities were comprehensive, addressing multiple facets of the community's interaction with the forest. This included tree planting, the introduction of energy-efficient technologies, and capacity-building for local community members and youths. Such a multifaceted approach increased the likelihood of achieving sustainable outcomes.
d) **Sustainability and Resilience:** The ToC incorporated elements that enhance both environmental sustainability and community resilience. The focus on agroforestry, tree nurseries, and sustainable farming practices aims to create long-term benefits for both the forest and the community. This dual focus is crucial for achieving lasting impact.

3.2. Effectiveness

Achievement of Project Objectives and Outcomes

This Project through ITF multiple benefits of trees and Community led approach to conservation and community livelihoods improvement addresses least six of the UN-Sustainable Development Goals (SDGs)[9] indicated below.

Figure 7: UN Sustainable Development Goals (SDGs)addressed by the project

The evaluation assessed the extent of the achievements of the following project objectives, using multiple data sources, including FGDs, KIIs, desk review of previous reports and project documents and direct observations.

[9] https://sdgs.un.org/goals

Objective 1: Increased Biodiversity in Dundori Forest

The baseline conducted prior to project implementation reported that wild animal populations have plummeted over the years to the present situation where hardly any can be found[10]. However, the project has significantly contributed to the restoration of Dundori Forest, as reflected in increased forest cover and improved ecosystem as seen in the previously degraded bare lands of the forest. Community members too have observed positive changes in biodiversity, with many noting the return of various plant and animal species. These changes have not only improved the environmental health of the area but have also boosted the morale and commitment of the community towards conservation efforts.

1. *"We have seen the return of birds and small animals that had disappeared," shared a farmer during an FGD, highlighting the visible impact on local wildlife.*
2. *"The forest is recovering, and we are witnessing more greenery and diverse plant species," noted a women's group representative, underscoring the enhancement in plant biodiversity. A youthful group member remarked,*
3. *"Our efforts have led to a healthier and more sustainable environment for future generations," illustrating the project's long-term environmental benefits.*
4. *"The biodiversity in Dundori Forest has markedly improved, with various indigenous species making a comeback,"* KII with KFS Officer revealed.
5. *"We've noticed a significant reduction in illegal logging and encroachment, which has allowed natural regeneration,"* KII with Project Coordinator.
6. *"We are now seeing more birds and small animals returning to the forest, which we hadn't seen in years,"* says a community member.
7. *"Our tree planting efforts are paying off; the forest is becoming denser and more diverse."* a woman stated in an FGD with tree nursery members.
8. *"The training on biodiversity has made us more conscious, and we actively participate in conservation activities."* A youthful CFA member stated

The project's aim to enhance biodiversity in Dundori Forest by restoring degraded areas and implementing conservation activities has largely been successful in the evaluation's perspective. The project efforts have shown significant progress in increasing plant species diversity and improving the overall health of the forest ecosystem. This was further backed by the statements from various participants.

Similarly, the evaluators' direct observations of the restoration sites reveals that the project initiatives have indeed led to improvements in forest cover and biodiversity in the previously degraded forest land, thanks to the project efforts in promoting indigenous tree species.

Community cohesion has been at the center in ensuring these successes. These benefits extend beyond environmental conservation, fostering a stronger sense of community and collective responsibility towards sustainable practices.

> *"The forest is recovering, and the community is more united in their efforts to protect and restore it,"* said a local chief, highlighting the dual benefits of environmental and social cohesion.

[10] ITF. Enhancing Community Led Restoration and Livelihoods Improvement- Baseline Survey Report, 2022

"The project has brought us together, and we have learned the importance of working collectively for the betterment of our environment," shared a community member, reflecting the project's broader social impact.

Figure 8: The state of Kamuyu site during project launch in 2022 (left and after restoration in May 2024 (right)

Objective 2: Improved livelihoods from higher agricultural production, increased incomes, and greater climate resilience for communities adjacent to Dundori Forest

Enhanced Agricultural Production

The introduction of agroforestry practices and the planting of fruit and other beneficial trees on farms boosted agricultural productivity among project communities. Participants were optimistic that crop yields will increase and some reported diversified sources of food and income, contributing to enhanced food security and economic stability. Comments included:

"Agroforestry will transform our farms. We now have crops and fruits, which will not only feed our families but also generate income from the surplus," said a community member during the FGD.

"The integration of fruit trees into our farms will increase our agricultural output and provide us with additional revenue," stated a woman involved in agroforestry activities.

Income from Employment and Wages

The project significantly improved the livelihoods of a community with limited income opportunities beyond constrained agricultural activities due to shrinking land sizes and conflicts with the forest. By offering various forms of employment and wage-earning opportunities, the project provided essential support. Participants, particularly from the Scouts, SHG leaders, and Community Forest Associations (CFAs), reported substantial benefits from receiving a monthly salary for their roles in forest conservation and restoration activities. For instance:

"We receive a monthly allowance for our work in the forest restoration efforts, which has greatly helped us support our families and improve our living standards," stated a Scout during the FGD with fellow scouts.

"The wages we earned from planting trees and maintaining the forest have been a reliable source of income," mentioned a CFA member and supported by all other respondents in the FGD.

'The certainty and regularity in paying wages enhanced planning and saving by community members, the conservation activities were in tandem with own savings and investment. We have received testimonies from community members who were able to invest in poultry, pay children education needs'… ITF Programme Manager

Figure 9: Poultry rearing. As Investment in income generating activities project proceed.

Furthermore, community members enthusiastically conveyed the benefits they gained from participating in tree planting within the forest. They highlighted how the earnings significantly supported their livelihoods, underscoring the rarity of such opportunities and their meaningful contribution to the restoration initiative.

"The project has provided us with regular wages for tree planting activities. This income has been crucial for many families in our community, helping us meet our daily needs," a participant stated in an FGD in Wanyororo community.

Another stated, *"Tree planting in the degraded lands of Dundori Forest has become a reliable source of income. We are paid for our efforts, which has significantly improved our livelihoods."*

"The wages we receive for planting trees have not only supported us financially but also encouraged more people to participate in conservation efforts," a SHG member in Wanyororo Community highlighted.

"Our community members have greatly benefited from the wages paid for tree planting activities. This initiative has brought financial stability to many households," a FGD participant narrated in Kamuyo community.

"Earning money through tree planting has been a game-changer for us. It provides us with a steady income and motivates us to take better care of the forest." A community member stated

"The regular wages from the project have helped us improve our living standards. We are more interested in the success of the reforestation efforts because it directly benefits our families," a SHG FGD participant in Kamuyu mentioned.

Income from Selling Products

The project also facilitated various income-generating activities such as the production and sale of liquid soap, energy-saving jikos (wood fuel cookstoves), and seedlings. These activities not only provided direct income but also contributed to the community's overall economic resilience. For example:

"The training on making liquid soap has been invaluable. I now produce and sell soap, which has become a significant source of income for my family," shared a participant from the women's SHG FGD.

"Selling energy-saving jikos has opened a new business avenue for us, reducing our dependence on traditional, less sustainable sources of income," reported a women SHG member during their FGD.

"The demand for seedlings is high, and this has provided us with a steady income stream," noted a member from the tree nursery FGD.

Participants reported an overall improvement in income, and all attributed these to the project. The evaluation quotes:

"The overall economic situation in our community has improved due to the diverse income-generating activities supported by the project," noted a chief during the KII.

"We have seen a positive shift in our community's economic health, with more families now having reliable sources of income," mentioned a school principal during the KII.

Climate Change Resilience

The project's focus on building climate resilience among target community through promotion of sustainable agricultural practices including introduction of high value fruit and agroforestry trees, soil and water conservation and diversification of crops, and restoration activities in Donduri forest have empowered the communities to better withstand climate variability in the future. Project participants expressed optimism about improved local climatic conditions, and the prospect towards climate resilience.

"One of the key successes of this project is the increased climate resilience among the local farmers, who now practice sustainable farming methods that help them cope with erratic weather patterns," Wezeshai CBO staff expressed.

"The reforestation efforts have not only restored the biodiversity but also enhanced the ability of the local ecosystem to adapt to climate changes, providing a buffer for the communities against climate-related shocks," KFS representative stated.

"With the introduction of new tree species and better farming practices, the community will better withstand drought periods, ensuring food security and stable incomes," CFA member affirmed

"Thanks to the agroforestry training, our crop yields will increase, and we have better food security," a community member retorted in an FGD.

These are positive strides towards improved community livelihoods. However, the community's resilience to climate change can best be tested in the long run beyond the project life.

Objective 3: Enhanced Knowledge of Environmental Conservation and Practices Among Students and Community Members

The project has significantly enhanced the knowledge of environmental conservation and practices among students in both primary and secondary schools. The various activities implemented under the project have been instrumental in fostering a strong environmental consciousness and proactive conservation efforts among young learners. Some of the student focused activities include tree planting and maintenances, environmental awareness and sensitization and environmental advocacy.

Increased Awareness and Practical Engagement: Students across the participating schools have demonstrated a heightened awareness of environmental issues and the importance of conservation. This is reflected in their active participation in tree planting activities and their commitment to nurturing the environment.

Figure 10: One of the Environmental School Power Programme beneficiary schools

This illustrates the long-term impact the project has had on instilling a sense of environmental stewardship among young learners.

Figure 11: Established school forest garden at Kamuyu primary school

Integration of Environmental Education into School Curriculum: The Government of Kenya introduced the Competency Based Curriculum (CBC) in 2017. The CBC emphasizes nurturing of learners' potential, national values, integration of Science, Technology and Innovation, and seeks to ensure that the skills taught in educational institutions match the requirements of industry. This will facilitate acquisition of 21st Century knowledge, skills and competences, values and character development, patriotism and global citizenship, with positive implications for the quality of human capital. These educational reforms are inextricably linked to the attainment of the Kenya Vision 2030 and the Kenya Constitution 2010. They also align with global commitments on education, such as the Sustainable Development Goals (SDGs) and the African Union's Continental Education Strategy for Africa (CESA 16-25) [11]

Environmental education is at the center of CBC with learners expected to gain critical experience, skills and knowledge in different environmental related matters. This project is well aligned with the CBC curriculum as learners in different schools engaged in the project actively participate in tree planting and maintenance activities. It is also aligned with goal 8 of the National Goals of Education that provides for promotion positive attitudes towards good health and environmental protection[12]

Teachers reported that the project's activities have complemented and enhanced the existing environmental education curriculum. The hands-on experience gained through tree planting and maintenance has provided practical knowledge that reinforces theoretical lessons learned in the classroom.

[11] Ministry of Education, State Department for Basic Education. Guidelines for implementation of junior secondary education, 2023

[12] Kenya Institute of Curriculum Development (KICD). Basic Education Curriculum Framework, 2017

Development of Environmental Clubs: The establishment and support of environmental clubs in schools have played a crucial role in sustaining students' interest in conservation activities. These clubs have organized various events and initiatives that promote environmental awareness and action. As one student from Dundori Secondary School mentioned,

"Being a member of the environmental club has taught me a lot about the importance of protecting our forests and the steps we can take to make a difference".

"The tree planting exercises have made our lessons on environmental conservation more tangible and relatable for the students".
Teacher from one of the Primary Schools

Community Outreach and Advocacy: Students have also taken their knowledge beyond the school boundaries, engaging in community outreach programs to advocate for environmental conservation. This outreach has helped bridge the gap between schools and the wider community, fostering a collective effort towards environmental protection. A school head teacher from the Kamuyu Community highlighted,

"The pupils have been great ambassadors for conservation, spreading the message to their families and neighbors".

It was interesting to note that the principal of Kamuyu Primary assigns pupils the task of collecting local tree seeds, which are then germinated to seedlings in the school nursery managed by the environmental club. The school club subsequently sells the seedlings to other students at a rate of KES. 2.00. per seedling (KES 10:00 for every five seedlings), for planting at home. This initiative indicates that the project is successfully developing students/ pupils to be young environmental stewards and ambassadors.

Across all the schools, students involved in these clubs emphasized that they are actively promoting tree planting at home, leveraging the knowledge they have gained about the importance of this practice from their school activities.

Individuals who reported not engaging in tree planting at home cited legitimate reasons, such as residing in rental properties in urban areas that lack the space for such activities. Additionally, a Form One student from Dundori Secondary School faced challenges due to the climatic conditions in his area of residence which he believes would not allow trees to grow well.

The enthusiasm and commitment demonstrated by students in school clubs towards environmental conservation reflect a deep understanding and appreciation of its importance, partly acquired through the project's provision of seedlings to the schools. Consequently, the

project has successfully instilled environmental stewardship values in the community, contributing to broader conservation goals.

It is worth noting that the project is primarily known to pupils and students in their final year of study (Grade 8 pupils in Primary schools, and Form 4 students in Secondary schools) due to their involvement in their school's environmental activities. These students could acknowledge and relate to the project and the impact in their school, unlike the younger members of the environmental clubs, i.e., they acknowledged the supply of seedlings. Conversely, the project had a significantly positive impact on the students, with impressive results as observed in their school gardens and compounds. A key lesson learned is that ITF and Wezesha should augment their seedling supplies with increased environmental awareness and sensitization programmes, especially for new learners.

On the other hand, the project significantly enhanced community knowledge on forest restoration and protection. Notably, an FGD participant and a project beneficiaries had this to say:

> *"The training sessions provided have greatly improved our understanding of sustainable forestry practices. We now know how to plant trees in a way that prevents soil erosion and improves water retention."*

Similarly, during focus group discussions members had the following to say:

- *We have learned the importance of agroforestry and how planting fruit trees can benefit both our environment and our families' income."*
- *"We used to think the forest was the government's responsibility, so we didn't care much about it. But now, we understand the co-benefits we derive from it and feel a strong responsibility to protect it against vandalism."*
- *"The sensitization has made us see the forest as our own. We feel responsible for its protection and are committed to preserving it for future generations."*

These testimonies underscore the project's success in raising awareness and fostering sustainable environmental practices within the community, aligning with the objective of enhancing knowledge of environmental conservation and practices among community members.

Objective 4: Greater local community participation in environmental decision-making and advocacy for conservation and rehabilitation of degraded areas in Dundori

Community involvement was a cornerstone of the project, and the participatory approach has been a critical factor in its success. The project actively involved community members in decision-making processes, which fostered a sense of ownership and responsibility. This inclusive approach ensured that the interventions were well-received and that the community remained

engaged throughout the project. This is in line with ITF Community Led Approach where people whose livelihoods depend upon local forests are the people who decide which trees to plant, where, and why.[13]

- *"We feel involved and responsible for the success of the project," said a woman in an FGD, expressing the community's sense of ownership.*
- *"The project's participatory approach has strengthened our community bonds," remarked a youth group member, indicating improved social cohesion.*
- *A local chief noted, "We have been given a platform to voice our concerns and contribute to the management of the forest," highlighting the inclusive nature of the project.*

The project fostered greater community involvement in environmental governance and advocacy, empowering locals to take an active role in decision-making processes and conservation efforts.

Participants emphasized the employment of local scouts in supervising farming activities while restoring the forest in the degraded places was a plus, and complemented the work of the Kenya Forest Service; thereby illustrating community engagement in ongoing care and protection of newly planted trees, fostering a sense of ownership among residents.

The evaluation discovered that ITF & Wezesha CBo used an all-inclusive transparent, and consultative approach in the identification and selection of the scouts to monitor and protect the restoration plots of the forest along sides the KFS wardens. For example, initial community meetings informed residents about tree planting initiatives and encouraged their participation in caring for the planted trees. FGD with the scouts highlights that, three meetings were held to discuss project initiation, tree maintenance responsibilities, and the selection of community supervisors **("scouts")** based on their demonstrated commitment to tree care. Scouts were selected from the local community to oversee the tree planting and maintenance efforts, emphasizing their passion for environmental conservation. After training, scouts were equipped with necessary tools such as gumboots and slashers to facilitate their monitoring and care-taking activities.

To further bolster their active engagement into this important task, Scouts received monthly facilitation to support their roles, which included overseeing tree care, identifying and addressing issues like rodent infestations, grazing and vandalism, maintaining daily occurrence records.

Scouts were supervised regularly, with designated leaders among themselves, overseeing their activities and while conducting weekly visits to ensure effective monitoring and support. The project supervisors met with scouts every 2-3 months to assess progress and provide guidance.

The scouts' work exemplified a successful strategy for enhancing local community participation in environmental decision-making and advocacy, which has largely been successful. The scouts

[13] https://www.internationaltreefoundation.org/

felt empowered as local residents in actively managing and protecting natural resources in Dundori, promoting sustainable development and fostering a culture of environmental stewardship among community members.

Figure 12: Community scouts engaged in the project

Objective 5: Strengthened capacity of local CFAs to protect Dundori Forest

In Kenya, the Forest Conservation and Management Act 2016 provides for registration and engagement of community Forest association (CFA) with the responsibilities of among others; to protect, conserve and manage the forest or part of the forest in accordance with an approved management agreement entered into with the Service and the provisions of the management plan for the forest and to formulate and implement sustainable forest programmes that shall be consistent with the traditional forest user rights of the relevant forest community.[14]

CFAs are pivotal in safeguarding critical forest ecosystems, with each important forest region typically hosting at least one registered CFA. These associations play a vital role in promoting sustainable forest management practices and fostering community involvement in environmental conservation efforts. The act recognized the need to involve community as a key stakeholder in the management of forest resources through re-afforestation programmes.

Drawing on its already established presence within the local communities near the forest, this project integrated with existing structures. The project engaged local Community Forest Association to enhance restoration efforts collaboratively. Feedback from Focus Group Discussions (FGDs) with CFAs highlighted that capacity-building workshops were conducted, equipping them with knowledge directly applicable to their roles and responsibilities. Notably, several CFAs employed by the project also served as scouts within their communities, showcasing their dual involvement in project activities.

[14] http://kenyalaw.org:8181/exist/rest//db/kenyalex/Kenya/Legislation/English/Amendment%20Acts/No.%2028%20of%202017.pdf

Objective 6: Initiation of nature-based enterprises among the community adjacent to Dundori Forest

The project introduced energy-saving jikos (cookstoves) as a key initiative. Training provided to Women Self-Help Groups (SHGs) on these energy-efficient jikos has not only empowered many to manufacture them locally but has also resulted in increased income. Moreover, the adoption of these jikos has promoted efficient fuel use, reducing the reliance on wood fuel for cooking and alleviating pressure on the forest ecosystem.

As part of the nature-based enterprise initiative, the project successfully introduced agroforestry practices in the communities surrounding Dundori Forest. This initiative has enabled community members to integrate high value fruits trees and shrubs into their agricultural lands, providing a multiple benefit. From planting of trees alongside food crops, residents now derive both food and wood fuel directly from their farms. This sustainable approach has not only enhanced local food security, but has also reduced dependency on natural forests for fuelwood, thereby promoting environmental conservation.

- *"In our community, people were trained by the project in jiko making, we were 15 community members' trained initially were7 women and 8 men. We were engaged by the project and we made the initial production of 250 jikos which we were paid for. Some trained members are building jikos yo earn a living, one young male FGD member reported to have earned K Sh 2,000 from making three (3) Jikos beyond those engaged by the project*
- Another retorted: *"Several community members are constructing new, modern kitchens to complement the newly installed jikos. Others have placed their jikos outside, preferring not to keep them in deteriorating structures, with plans to build better kitchens in the future."*
- *We, as women, feel empowered through the informative workshops provided by the Dundori project, which have included training sessions on soap making and the creation of energy-efficient jikos."*

A FGD participants

Certain community members are supporting the idea of developing eco-tourism due to the area's spectacular scenic views, which could draw local, domestic and international tourists and potentially generate employment for youth while creating business opportunities for the local community near the forest. A male, a member of the CFA, echoed this sentiment. The key takeaway is that there are many opportunities to develop nature-based enterprises within and around the forest, fostering sustainable conservation with strong local ownership.

As part of its comprehensive approach to environmental conservation and community development, the project introduced tree nurseries within the Dundori Forest communities. These nurseries have played a critical role in providing a sustainable source of tree seedlings for the restoration efforts, especially the indigenous species that the project sourced to the nursery operators, thereby promoting the original indigenous species of the Dundori forest that was lost due to degradation, and enhancing local biodiversity. The establishment of tree nurseries by old and new entrants established by the project has also empowered community members by providing them with training and economic opportunities, furthering the project's goals of sustainable forest management and local economic development.

A female respondent had this to say:

> *"We had excess ready tree seedlings to sell before project started, emerging from the COVID-19 crisis. When they approached us to partner, we embraced the idea totally. We no longer have excess tree seedlings as the project is able to meet our production capacity... Due to the increase in tree nurseries, there has been a major stride in restoring the degraded forest as we are able to produce a lot of seedlings which are also readily marketable."*

The respondent further narrated.

> *'I never used to have a job, but at the moment I am self-employed as a tree nursery operator, empowered, and have also employed two other young people at my nursery in assisting me with the works. Therefore, the project has been pretty important to our community. Whatever I get from sale of seedlings is of much benefit to me and my family. …. tree seedlings which are now better priced'*

Differential project benefits and outcomes across intervention groups

The project targeted local community, providing significant benefits to Self-Help Groups (SHGs), Community Forest Associations (CFAs), Scouts, and the general community. Importantly, it positively impacted all gender groups, including school children, women, youth, the elderly, and men and People Living with Disabilities. The environmental and agroecological benefits of forest restoration efforts are universal, impacting on the entire community rather than specific groups. However, the project benefits have accrued variably to different gender groups. For instance:

Women:

Amongst the women, project participants attributed that the introduction of fuel-efficient stoves has saved money, time and effort for looking for fuelwood, allowing them to engage in other productive activities. Training on agroforestry practices provided alternative income sources and improved farm productivity.

On another hand, women earned wages from tree planting and selling seedlings, which helped meet daily needs and supplement incomes. Women, owned most of the tree nurseries even before the project was initiated, therefore they were more engaged in project activities like empowering them with new skills and business opportunities of selling tree seedlings to project and making jikos.

Figure 13: Daily goat purchased through project proceeds

'I used to farm with my husband and used to be paid collectively and the proceeds from farm used collectively as a family; the project gave me my own income from paid labour during planting of trees, I invested money by buying few chicken which I sold over 6 months and now I have a goat and kid'

A women participant

One of the local administration officials had this to say,

'During seminars, I see mostly women being trained and were the majority making 'koroga jikos' (concrete jikos-energy saving stoves). I like the idea of women empowerment since the whole community will also be empowered'

Women assumed proactive leadership roles within the project, serving as leaders of self-help groups, project scouts, and/or members of CFAs. The evaluation revealed that training opportunities provided by the project significantly empowered women, some of whom initially struggled with public speaking but overcame their lack of confidence. These women subsequently excelled in their diverse roles within the project.

Children

Students and pupils have benefited from educational programs focused on tree planting and environmental conservation facilitated by the project. Schools have also received indigenous tree species for planting in their gardens, fostering a hands-on learning experience and promoting environmental stewardship among the younger generation. The knowledge gained on various tree species proved invaluable to the children. One pupil from Mugwathi Primary emphasized the importance of future projects, by requesting that the trees planted in schools be name tagged for ease of identification by children.

Improved parents' income out of paid labour in the project supported educational needs of their children.

One community FGD member at Kamuyu indicated….

'When the project started, I had a child joining secondary, I used the money paid for labour to attend to my child's school needs'

A male (in 40s), scout member during the FGD narrated,

'Let me tell you madam, I had children in school, and my children would be chased from school. My 1st salary as a scout I paid for my child school fees. I had a balance of 4,000 paid 3,000 and child went back to school'

Another male respondent,

'When I got my first allowance as a scout, I moved my daughter from day school to boarding school and she is going on with her studies'.

Youth

Youths were significant beneficiaries of the project, experiencing similar advantages as women and men, with no age-based discrimination provided individuals were physically capable of contributing to the forest restoration efforts. Their involvement included crucial roles in providing physical labor, such as digging holes and transporting seedlings to planting stations.

Moreover, youths actively participated in all training sessions offered by the project, acquiring valuable skills and knowledge. They received wages for their labor, which provided them with financial benefits and incentivized their continued participation. Some youths took on roles as nursery operators, earning income from the sale of seedlings, while others were employed as laborers within the nurseries.

Additionally, a number of youths were able to save and accumulate productive assets, such as livestock and opened small-scale business enterprises, including baking, grocery shops, and the sale of agroforestry products. This accumulation of assets further enhanced their economic stability and development, demonstrating the project's comprehensive impact on their livelihoods

During the FGD with scouts, participants reported that A young married lady, who was engaged during planting of trees at Wanyororo bought 8 chicken and also opened a business of supplying mandazi which was thriving.

Figure 14: A beneficiary operating a bakery shop

A young man in middle level college who was paid for 8 days labour, managed to buy a bicycle which he cycles to school every day since he is a day scholar.

Elderly

The able-bodied elderly men and women also significantly benefited from the project. They expressed joy and satisfaction at seeing the return of indigenous tree species to the forest, which once again provides them with access to herbal medicines and other forest benefits. The elderly appreciated witnessing the youth taking active roles in forest restoration, contributing to reversing deforestation and improving climatic conditions. The training sessions were particularly impactful, and the knowledge gained on agroforestry proved to be highly beneficial.

Men:

The project equally incorporated men into the project implementation and monitoring, and provided similarly training opportunities to them alongside women. The capacity building sessions enhanced their ability to implement effective restoration activities, resulting in notable environmental improvements as they had more specialized physical tasks where women could not excel well enough in the tree planting exercise. Engaging them in planting activities provided opportunities for earning wages, while participation in the forest restoration program enabled their access to land for farming, thereby bolstering agricultural productivity. Compensation received for their roles as members of CFA and Scouts not only recognized their contributions but also incentivized continued commitment to conservation efforts.

Factors that led to the success of the restoration project

Key Informant Interview participants attributed the success of the project to various reasons, namely:

a) The dedication and passion of the project teams to transform the community were instrumental. Their commitment drove the project forward, ensuring that initiatives were deeply rooted in the community's aspirations and efforts, thereby enhancing the project's sustainability and impact.
b) The project team's support for community activities, such as jiko making, and its presence during community meetings were key success factors. This support not only provided practical assistance but also reinforced the project's alignment with community needs and schedules
c) The continuous presence of project staff working with the community on a regular basis was essential. This hands-on approach ensured consistent engagement, provided immediate support, and facilitated smooth implementation of project activities.
d) The project's strategic focus on involving women, who have proven to be reliable in community activities, significantly contributed to its success. The empowerment of women through leadership roles and targeted training bolstered their active participation and enhanced project outcomes.
e) The community's understanding of the importance of forest conservation for their livelihoods played a crucial role. This awareness motivated them to actively participate in and support the project's initiatives, aligning their interests with conservation goals.
f) Working closely with existing conservation efforts by KFS and community members already engaged in such activities created a synergistic effect. This integration ensured that the project built on established foundations and benefited from local expertise and networks.
g) Partnering closely with CFAs was instrumental in the project's success. CFAs managed entry into the forest, oversaw tree planting, and ensured the protection of planted trees. This collaboration fostered a sense of ownership and responsibility within the community, leading to sustained conservation efforts.
h) According to a local area chief, the effective monitoring and reporting by CFA and scouts, unlike previous reports from the KFS, ensured reliable tracking of progress and timely identification of issues of forest destruction. This accurate information flow was crucial for making informed decisions and maintaining the project's credibility.
i) The strategic allocation of financial resources, particularly for labor wages in tree planting activities, emerged as a significant success factor. Communities expressed high satisfaction and trust in the project team, contrasting their positive experiences with previous entities that have worked in the community before. FGDs with Self-Help Groups (SHGs), community members, scouts, nursery operators and CFAs confirmed that project has been a reliable and consistently present partner, meeting community needs effectively.

Major challenges that were counterproductive to project objectives; how they were resolved and lessons learned

a) A community member was reported to have engaged in tree destruction. As a resolution mechanism, the incident was reported to KFS and the area chief who are involved in enforcement. Within days project team organized a community dialogue with the community members from the area and were able to pick insights that guided on the feedback to the CFA leadership and site maintanance team on conflict resolution. The lesson learned is that swift interventions guided by findings from community dialogue

helps deter destructive behavior emanating from misunderstandings and reinforces community responsibility.

b) Some farmers using chemicals that affect indigenous trees posed a challenge. Upon identifying, the project brought in experts to train farmers on appropriate chemical use and alternative methods of weed and pest control in the restoration fields. Further sensitization and education, as well as alternative weed control practices (organic methods) that reduce the impact of chemical use on tree health and growth. The evaluators' observations of sites identified a few trees weakened by the use of unrecommended chemicals by one farmer.

   It will important to acknowledge any positive changes arising from ITF and project increased advocacy activities and awareness creation events on the use of agro-chemicals here?

c) Planting activities faced disruptions due to adverse weather conditions. Therefore, replanting was necessary in cases where dry weather followed initial planting.

   The learning drawn from this is that planning for weather variability and flexibility in project timelines are essential for successful implementation.

d) On another hand, there was rescheduling of project activities such as planting due to delayed rainfall. The flexibility in activity scheduling and adaptation to the weather patterns was essential in optimizing planting times. The lesson is that anticipating weather fluctuations and adjusting project timelines accordingly enhances efficiency and success.
e) Challenges in transportation of tree to and through difficult terrain. Joint labour and use of donkeys were the only options resort to overcome the difficult terrain, despite the limited number of seedlings it can transport. The lesson is that adapting planting techniques and providing adequate logistical support are crucial for overcoming terrain and transportation challenges.
f) Community's ongoing reliance on forests for livelihoods posed a challenge to project goals. This was countered by increased community sensitization and encouragement to adopt sustainable farming practices. The learning here is that long-term community engagement and education are necessary to shift reliance away from forest resources.
g) Rodent damage to young tree seedlings, leading to additional labor and resource expenditure for replanting. The point to note is that proactive pest management strategies are crucial to protect seedlings and ensure project success.
h) The project registered surplus labour force for wages in the community. This led to a rotation of workforce for participation in tree planting activities to ensure that community members willing to work were given an opportunity. The lesson learned is that there is excess labour without meaningful employment and therefore the communities require additional opportunities beyond what the project could adequately meet.

3.3. Efficiency

Activity Timeliness

The project exhibited exceptional time management in scheduling and executing activities within the restoration areas of the forest with the community. A desk review of work plans and project period reports revealed that planned activities were consistently implemented on time, with weather-induced delays being the only exceptions. According to community interviews and focus

groups, project team members frequently arrived at community meeting venues ahead of schedule. Additionally, participants consistently reported receiving planting materials and other essential supplies promptly.

Human Resource Efficiency

The project staff are praised for their efficiency in handling project responsibilities in this restoration mission. Interviewed stakeholders expressed satisfaction and utilization of skills and competencies in multiple dimensions, with an ever-present availability of project staff at any moment whenever needed by the community involved in the project.

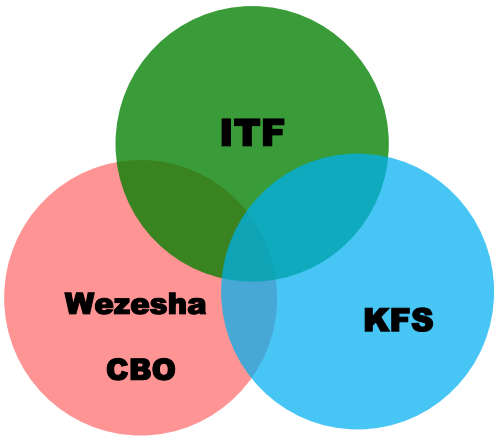
The project staff adhered to work plans and had regular communication of scheduled activities with stakeholders, handled in a timely manner any complaints or challenges faced by the community project participants; thereby demonstrated effective human resource capabilities and management potentials in their maiden project.

Coordination & Workflow Efficiency

The tri-partite partnership between ITF, Wezesha CBO and KFS provided smooth operationalization of project activities due to clear roles and responsibilities as well as opportunities for synergy, knowledge sharing and coordination.

The development and approval of Framework of Cooperation (FOC) between ITF and KFS has also enhanced project coordination and implementation as it stipulates critical areas for partnership, support and synergy.

The project coordination structure was multilayered and collaborative, involving multiple stakeholders in the restoration mission. The evaluation takes particular note of the involvement of the Kenya Forest Service (KFS) for their law enforcement and surveillance responsibility in the project, and their involvement led to improved efficiency in dealing with law breakers in this forest restoration mission. The project also recognized the collaborative role of the Community Forest Associations (CFA) with the KFS, being community-based associations enshrined in the Kenya Forest Act, and vested with the responsibility of comanaging forest resources, monitoring and reporting of community's interaction with the forest if negatively affected for the necessary law enforcement.



To further bolster the responsive use of the restoration land for agriculture (while taking care of the planted trees), the project's endeavor to use scouts for the monitoring and reporting of forest related offences from farmers in the designated fields was also empowering to the communities, and increased the capacity of the CFAs, and lessened the responsibility over their shoulders together with KFS. Besides, the scouts and CFAs worked closely with their area chiefs by reporting and handling community offence, before the case is forwarded to the law enforcement authority (KFS). It is indicated that the leadership of the CFAs was actively involved in decision-making throughout all project phases in the forest, including the selection of Scouts.

Therefore, the evaluation finds that this elaborate collaboration and coordination structure eased the project implementation.

Benefit-Cost Analysis

The project has yielded numerous significant social-economic and environmental benefits. It successfully restored about 75 hectares of degraded forest land, and growing close to 20,000 mostly native and fruit trees in schools, a health center and other institutions. Approximately 200,000 trees, (Translating to direct financial benefits) comprising over 11 indigenous species, were planted. More than 1,000 farmers benefited from various engagements, including agroforestry and labor work. In the project implementation, over KES. 4 million benefited communities in diffrenet project activities including seedlings purchase, seedlings transportation, site preparation and planting.

Sensitization and awareness programs were promoted in the communities. The project supported 13 public institutions with tree seedlings and educational messages. Agroforestry was facilitated in about 200 farms, tree nursery businesses were supported, and employment opportunities were provided to scouts whose economic benefit was approximately Ksh. 900,000.00 Farmers also received wages for labor work. These achievements collectively highlight the project's positive impact.

Considering that the costs of achieving all the outputs, the evaluation concludes that the benefits far outweigh the costs. Thus, the project demonstrated substantial efficiency in utilizing its financial and human resources to generate tangible outputs.

3.4. Impact

Biodiversity and Ecosystem Restoration

The project aimed at restoring the degraded forest land and strengthen the conservation of the still existing trees alongside the Kenya Forest Service and the CFA. Accordingly, Phase 1 project successfully planted approximately 181,000 trees within the forest and close to 20,000 trees in public institutions and farms over the past two years, contributing significantly to reforestation efforts. By distributing seedlings to community members to plant in their own farms, the project has encouraged forest preservation by providing an alternative source of firewood, thereby reducing the strain on forest resources.

About 11 indigenous tree species were successfully restored to the forest land, thereby increasing biodiversity into the forest. Communities testified that they have sighted some small mammals in the forest which were rarely seen such as Dik diks. The sounds of diverse birds have also increased with some nests sighted on the taller Dombeya trees. They attribute increase in small mammal and birds to the increasing tree cover and forge provided by the diverse trees in the restored sites.

It was reported that communities have become more adherent to the forest regulations, self-regulating and the work of KFS and CFA have even been made easier, coupled with the additional support of project scouts.

Additionally, the project increased community knowledge on environmental conservation, fostering hopes for transforming these communities into proactive stewards of their natural resources. Interviews held with communities suggests that there is local ownership and general regard for preservation of the forest.

There is general belief among stakeholders interviewed during the evaluation that they have witnessed a change in the environmental conditions recently. Communities noted that water catchment areas and/or water towers gradually been restored, leading to re-emergence of waterfronts

Communities testified that water catchment areas, and water towers that had dried have been restored, something they had not hoped that much given the increasing climatic variability. Interview and focus group participants confirmed that there has been an increase in rainfall pattern in the area in the recent 2 years. Although the evaluation could not directly attribute this change to the just established tree cover, there possibly could be a contribution into this pattern but not holistically.

The degraded and eroded forest land with huge gullies has been restored, and the gullies are being filled by vegetation, which signifies an important achievement of the project, thereby preventing further gullies in the future and a stable eco-system.

Energy saving cook stoves have reduced the use of forest resources, and improved domestic economy through savings on fuel wood. Given that the cook stoves do not emit excessive smoke, beneficiaries have reported improved health conditions and safeguarding against smoke–related eye infections and lung infections.

Employment, Income and Livelihoods

The project has created various employment opportunities to the communities, including casual labor, supervisory roles, and scouts within the project intervention communities. Women and youth have particularly benefited from the project through increased employment opportunities.

Some of the project beneficiaries have started various businesses, including tree nursery businesses, chicken rearing, goat milk farming, and soap making. The project has improved the economic situation of many families, enabling them to pay school fees and cater for other financial needs.

Women have begun earning their own income as a result of this project, something most had not encountered but relied on the income from the husband or from joint farming activities by the family.

For this matter, it would be very valuable to gather specific quantitative data related to livelihoods and economic benefits. It is recommended to reach out to Wezesha for comprehensive details in this regard. Additionally, it would be beneficial to present a detailed breakdown of the various beneficiaries. Are we able to estimate or provide an approximate number of indirect beneficiaries?

Furthermore, do we possess evidence that demonstrates the accessibility of financial services such as soft loans to the target demographic?

Beneficiary testimonies of the project:

A youthful lady, Margaret Njoki, a resident of Wanyororo, had this to testify about what the project was able to achieve in her life:

> *"I started working as casual laborer for the Dundori project when it started in the year 2022 after being identified by a CFA member. Using the labour wage proceeds, I saved and later got involved in baking business, where I started with 2 packets of flour. Today I bake more than 2 bales of wheat flour per day, and my business has drastically improved from retail to a distributor of mandazi within Kabatini area. I have employed 2 young men plus my husband in my business, therefore I am acting as an employer to other people and improving their livelihood as well. I have started goat milk farming where I also anticipate getting more goats and increasing my income"*

Samuel Kamau Kanyaria, a male adult in his 50s, a resident of Wanyororo said:

> *"…… after leaving South Africa I came back home and I got introduced into Dundori by Mr. Lawrence (a CFA in his area). After I joined the project, I save some money and have since connected my home with running water from the community project at a cost of 30,000 shillings. I have also started chicken rearing and so far, I have 19 chickens. I am hopeful and assured of some income."*

Dorcus Wambui, a middle-aged woman and a resident of Wanyororo:

> *"……. I used the same proceeds from the project, bought myself a milk goat, which has since produced kids. I am able to get milk from it for my family, and also sell half a litre to a sickly neighbor in my community on a daily basis. Because goats' milk is very nutritious and rich in antibodies, I have seen my children flourish and we are very healthy. Since I started feeding my children some goat milk, my children do not suffer from flu while all my other neighbors' children do."*

Benson Maina, a middle-aged man, and a nursery operator at Dundori:

> *"Dundori project has impacted my life and my family in a big way. Due to earnings from selling tree seedlings I bought two donkeys (both at Shs14,000) which I hire out at a fee, daily for about 600 shillings and each fetching 300 shillings. I am engaged most of the time throughout the day at the tree nursery. I have a happy family and my household has an improved food security and livelihoods."*

John Mucheru, a youthful nursery operation testified:

> *"I started my tree nursery in the year 2022. Due to increased earnings from selling trees to the project, I was able to open a shop near where I live as a source of income, the community is happy as they get goods without having to walk long distance to get whatever they need, also it has reduced family quarrelling as we are busy in the different*

initiatives. From the proceeds received I am able to raise school fees for my children, The project has really enabled me do a lot and in a short time this has uplifted and transformed my family in a big way and positively. Even when I look at my wife, I can see she has even added curves and is looking more attractive."

Alice Wangui, a middle-aged vibrant female nursery operator at Dundori:

"After receiving proceeds from my tree nursery, I started livestock farming with a young calf, I now have 1 fully grown cow. I get some profit from selling the milk to my neighbors. I also started commercial farming after training. This has enabled me to have more than one stream of income, and I no longer borrow from family and friends as am able to sustain myself and my family. I have also bought a plot and I plan to build one unit this year, and hopefully become a landlady in the coming year."

Gladys Muthoni Kaberu, in her forties and a nursery operator at Kabatini testified,

"…… I am the sole breadwinner of my household, as my husband is deceased. I had a small tree nursery since 2018. From the proceeds of selling trees to the project, I was able to raise school fees for my children and the money to cater for food. I have some few chickens where I have eggs for sale and consumption at home and have also bought a heifer and I hope to buy and expand my farming business going forward. Besides, I have so far attended several seminars through the project and have received trainings in nursery management, and on gender issues; how to live in and with the community; and also how to conserve the environment"

Josephine Wangari, a lady in her 40s, an official in her SHG and a scout had this to testify:

"I started working as a casual laborer for the Dundori project when it started in the year 2022. I later got promoted as a supervisor and now am the chairlady of our group, and a scout. From the proceeds received I was able to raise school fees for my children. I also started goat milk farming with one goat and so far, I have eight goats. I sell some milk for a profit, and some milk for my family which has led to improved health as goat milk is very nutritious. Currently I am one of the scouts and I earn some monthly payment. Through trainings received, I am a trained jiko maker, making the energy saving jikos. I make up to 2000 shillings for every jiko made to a client. Dundori has really enabled me to do a lot, and has uplifted my family in a big way".

Peter Njoroge, Nursety owner and CFA official:

"After the project came they started buying my tree nursery seedling. From this profit I was able to raise school fees. I have built myself a permanent home as a result of earning from sales to the project. I also started bee keeping. Later I got employed as a scout and later lead scout and with the proceeds from Dundori project, I started livestock farming, and currently I have 1 cow and two calves. I make some profit from selling the milk to my neighbors. I also increased my tree nursery business after training, and this has enabled me to have more than one stream of income. In a year I make 300,000 shillings from tree seedlings, 60,000 shillings from 60kgs of honey. This project has enabled me and my family to grow and stabilize."

Elijah Nyakundi, a man in his sixties, a CFA member and a nursery operator testified:

> *"……. I have attended several trainings through this project, including on farming. I operate a nursery and I bought my first motorbike from the proceeds of tree seedlings. I started sheep farming along sides, and so far, I have ten sheep. I increased my tree nursery business, and am a supplier of tree seedlings in Dundori and Kabatini areas. I can sell up to 2000 tree seedlings in a month. I therefore can say Dundori project came to uplift my life. I used to drink alcohol but have since stopped. At my old age, I am self-reliant and we are just alone with my wife, as all my children are grown up and have their own homes now."*

Stephen Ngure, a youthful CFA member stated:

> *"……. When Dundor projecti came it created employment for me thereby giving my family a source of livelihood. I started by buying two chicken and a calf. I intend to start a hatchery business where I will sell a-day-old chick for 100 shillings each."*

Mary Njambi, middle-aged women in Kamuyu community and a member of SHG testified:

> *"After receiving proceeds from the project, I started livestock farming with a young calf, I now have 1 cow and two calves. I make some profit from selling the milk to my neighbors. I also started tree nursery business after training from Dundori project this has enabled me to have two streams of income and I no longer borrow from family and friends as am able to sustain myself and my children"*

Leah Wanjiru, a middle-aged woman in Kamuyu area and a member of SHG stated:

> *"….. I and my two children were recruited into Dundori project for the planting of trees in the forest. From the proceeds I was able to raise school fees for my child who was due to be admitted for form 1 school. Due to hard work, I was promoted to a supervisor in the tree planting exercise and this has enabled me to buy two sheep from the proceeds."*

Sharon Njenga; a scout and a SHG member, a middle-aged women testified:

> *"…… When this project came my child had been sent home due to fees arrears. My first payment was used to clear his school fees. I was also trained in construction of energy saving jikos which I do for the community for a fee. I have recently bought a dairy cow which is due to deliver in a short time. I also do soap making and sell to friends and neighbors at a fee."*

Testimonies from scouts FGD members:

- A lady: *I bought 4 chicken at Ksh 2000 for rearing and later sold at a profit and bought a goad at Ksh 5000*
- A lady: *I bought 12 chicks each at Ksh300, I sold the cocks and earned about 14,000*
- A middle-aged man: *I used the proceeds earned to till and acquire farm inputs which improved crop yield, currently I bought 3 chickens and I am able to cater for school expenses for my children.*

- Man: *I invested my money differently, bought fertilizer for my farm, during harvest time, I sold almost 30 sacks of potatoes each at Kshs4100*

  I Joined a women group bought a calf/cow

Unexpected Effects

This project has led to several positive, unexpected effects within the community.

a) Women earned from project and were able to make independent financial decisions, they initiated small income generation projects like poultry, animal rearing like goats and cows which they sell and become financially dependent.
b) More men started being engaged in tree nurseries which was initially a women dominated venture due to nature of work that require bending due to availability of market for the seedlings availed by the projects.
c) Communities initiated small income generation projects out of proceeds from allowances for services rendered to the project.

The respondents repeatedly said,

> *'the project taught us about saving, we were told to do something that will help us remember the Dundori project forever*, a female respondent in an FGD had this to say*….I did not think about chicken rearing since I had no way of fencing for them but when I got money I managed to do so'*

d) Women's livelihoods have been significantly enhanced, allowing them to become contributors to their families, which has resulted in increased happiness in families in the community and less domestic violence.
e) While no specific negative unintended consequences have been reported, the project has inadvertently spurred the formation of self-help groups, thereby enhancing social cohesion and support.

3.5. Sustainability

3.5.1. Sustainable Outputs, Outcomes and Impact

a) Restoration of Forest Land

Sustainability of restored forest sites is high due to appreciation of importance of conservation form community having experienced impacts of deforestation in the past. In essence, the planting of over 180 000 trees and the restoration of about 75 hectares of degraded forest land are long-term investments in environmental health and ecological integrity. These activities are likely to have enduring benefits as trees grow and mature, providing ongoing ecosystem services such restoration of hydrological functions, air purification, carbon sequestration, and habitat for wildlife. The communities will equally access Non-Timber Forest products (NTFPs) such as herbal medicine, fruits, gum, fiber and honey from the restored and conserved indigenous tree species the forest.

Additionally, the project has enhanced natural regeneration of sites including riparian lands that has improved hydrological functions. Mentoring records across forest and agroforestry site indicate survival of over 80%

Figure 15: evidence of increased natural regeneration along riparian areas in the restoration sites

b) Water Catchments Restoration

The restored water catchments are highly likely to sustain. The reason is that the restored catchment areas have improved water availability downstream, which is essential for agriculture, drinking, and other community uses. Consequently, this can lead to sustained environmental and economic benefits beyond the life of this completed project.

c) Figure 16: several streams observed in the restored site

d) Tree Nursery Businesses

The government launched a campaign to plant 15 billion trees in ten years from 2022 in a bid to reach 30% tree cover in Kenya. This is likely to provide economic opportunities for tree nursery operators in the country.[15]

[15] https://kippra.or.ke/from-tree-planting-to-tree-growing-a-paradigm-shift-towards-30-tree-cover/

Tree nursery groups under the ITF funded project will also take this opportunity to grow trees beyond the life of the 2-year project.

As these tree nurseries buffer KFS owned nurseries for the on-ongoing reforestation and afforestation efforts it is highly likely that there will be market for the seedlings especially by social institutions (private and public), as well as the general public, thereby providing a source of income for community members, contributing to economic sustainability.

Please seek further information from KFS and WEZESHA regarding the current situation with the tree nurseries. It has been noted that these nurseries are experiencing overproduction and are functioning as businesses.

e) Employment and Livelihoods

There is a moderate to high likelihood that the beneficiaries of the completed project will remain employed and continue to derive their livelihood from the project initiations. For instance, employment opportunities provided by the project, such as those for scouts and laborers can be sustainable if there is continued institutional support. The promotion of alternative livelihoods and agroforestry, and investing savings in wealth creation assets such as goat farming, dairy farming, establishment of retail shops, baking businesses, etc, with continued market demand will highly likely endure among the community project beneficiaries.

f) Formation of Self-Help Groups

The SHGs are organized institutions where savings are conducted and shared labor is exercised. Given the momentum the SHGs have gained, there is a high likelihood that they will continue to thrive and keep the community members united and committed to conserving the forest resource as well as provide solutions to local social economic challenges such as development of Village Savings and Loans Schemes to address challenges of lack of access to financial assistance from mainstream financial institutions such as banks. Therefore, these groups enhance social cohesion and provide mutual support, which can persist beyond the project's timeline.

g) Monitoring and reporting of forest related offences and malpractices

There is moderate to high chance that the monitoring and reporting of mal-practices in restoration sites will continue. This is because local community is empowered to address these issues alt the local level through local conflict resolution frameworks available.

Less Sustainable Outputs, Outcomes, and Impacts

a) **Reduced Idleness and Alcohol Abuse Among Youth**

There is moderate likelihood that reduced idleness and alcohol abuse will be sustained among youth. The explanation is that, while the project has reduced idleness and alcohol abuse by engaging youth in productive activities, sustained impact will require ongoing programs and opportunities targeting the youth in order to keep them engaged.

b) **Scouts Working Without Further Facilitation**

Equally, there is Low to Moderate chance that the forest scouts will remain firm without further facilitation, even though most of them have vowed they will continue with the interventions beyond the project life. The scouts' ongoing involvement in forest conservation without further facilitation poses sustainability challenges. Without continued support, such promotion of nature-based enterprises to substitute monthly facilitation in the future, their motivation and ability to effectively monitor and protect the forest may diminish over time.

Overall, the sustainability of the project's impacts largely depends on continued community engagement, institutional support, and resource availability. Environmental impacts, such as forest restoration and water catchment improvements, are inherently more sustainable due to their long-term nature. Economic and social benefits, such as employment and improved livelihoods, can be sustainable if there is ongoing market demand and institutional support. Nevertheless, the project has demonstrated several sustainable impacts, particularly in environmental conservation and community empowerment.

3.5.2. Community knowledge, attitudes and practices

a) Community Knowledge on Environmental Conservation

The increased knowledge and awareness about environmental conservation among community members is likely to have lasting effects. Once people understand the importance of conservation, they are more likely to continue these practices independently. Education and training programs conducted during the project have equipped community members with valuable knowledge that can perpetuate sustainable practices even after the project's conclusion.

b) Attitudes Towards Forest Conservation

The shift in community attitudes towards forest conservation and restoration, including a sense of ownership and responsibility for the forest, suggests a long-term commitment to preserving these areas. Positive attitudes are reinforced by visible benefits such as improved water catchment areas and increased biodiversity, making it more likely that these attitudes will persist.

c) Sustainable Practices

Practices such as agroforestry, tree nursery management, and the use of energy-efficient cookstoves have been adopted by the community. These practices not only provide immediate benefits but also promote sustainability by reducing the reliance on forest resources. The adoption of these practices indicates a transformation in how the community interacts with the environment, which can be sustained with continued knowledge sharing and community support.

d) Knowledge Transformation

The project's focus on education and training has led to significant knowledge transformation within the community. This knowledge encompasses the importance of forest conservation, the benefits of biodiversity, and sustainable agricultural practices. The sustainability of this knowledge

is supported by the community's ongoing engagement and the tangible benefits they have experienced.

e) Attitude Change

The change in attitudes towards the forest, from seeing it as a government resource to understanding its value and feeling responsible for its protection, is a critical outcome. This attitudinal shift is likely to be sustainable as long as the community continues to see the benefits of their conservation efforts. Several key actions show positive attitude change, including a reduction in charcoal production, decreased livestock grazing and logging, cultivation along riparian lands, and the adoption of agroforestry interventions.

f) Practice Adoption

The adoption of sustainable practices, such as agroforestry and energy-efficient cookstoves, indicates a practical application of the knowledge gained. These practices not only help in conservation but also improve livelihoods, providing dual incentives for the community to maintain them.

Overall, the project's efforts in enhancing community knowledge, shifting attitudes, and promoting sustainable practices have created a foundation for long-term sustainability. Continuous engagement, periodic reinforcement through training, and visible benefits will further support the sustainability of these outcomes.

3.5.3. Coordination functions

a) Coordination of Community Forest Associations (CFAs)

The CFAs have been actively involved in project phases, including decision-making and selection of scouts. The strengthened capacity and organizational skills gained during the project can help sustain coordination efforts. However, the continuation of effective coordination may depend on ongoing support and resources, as well as the commitment of CFA members. Therefore, the sustainability of coordination of CFAs is moderate.

b) Monitoring and Reporting

Effective monitoring and reporting of bad practices in restoration areas were part of the project's success. Maintaining this function requires continuous vigilance, resources, and motivation. Without external support, there is a risk that the intensity and quality of monitoring could decline over time. Sustaining these efforts may require the establishment of robust community-led monitoring systems or securing ongoing support from stakeholders. The chance of monitoring and reporting functions to persist in the community by the community is Moderate to low.

c) Role of Scouts

The scouts played a crucial role in monitoring and implementing project activities. However, their future effectiveness is uncertain without further facilitation or incentives. If scouts are expected to

continue their work without compensation or support, their motivation and ability to perform effectively may diminish. Alternative strategies, such as community recognition programs or integrating scout functions into existing community roles, might be necessary to sustain their involvement. Therefore, their role sustainability is low.

The sustainability of scouts' involvement hinges on finding ways to maintain their motivation and support. Community-based incentives, recognition, and possibly integrating their roles into existing local governance or volunteer systems can help sustain their contributions.

d) Community Engagement, and local ownership

The project fostered a sense of community ownership and engagement. Continued success will depend on the community's ability to self-organize, and the presence of committed local leaders, for example, the role of chiefs in conservation. Establishing strong local governance structures and clear roles can help maintain coordination efforts beyond the life of he completed project.

e) Coordination Mechanisms

The project's coordination mechanisms, including the involvement of CFAs and scouts, were effective during the project. To sustain these mechanisms, it is essential to build local capacity and ensure that coordination functions are embedded within the community's governance structures. Training programs, leadership development, and resource allocation are critical to support these efforts.

Establishing a robust framework for ongoing coordination that includes regular meetings, clear communication channels, and defined responsibilities will support the sustainability of coordination functions. By focusing on building local capacity, securing ongoing support, and fostering a strong sense of community ownership, the coordination functions established during the project can be sustained, ensuring the long-term success of forest restoration and conservation efforts.

f) Monitoring and Reporting

Sustainable monitoring will require a shift from project-driven activities to community-owned processes. Developing a system where community members can report and address issues collectively can enhance sustainability. Encouraging transparency and accountability within the community will also be vital. Participatory monitoring practices, with clear M&E indicators and frameworks could play a central role.

4. CONCLUSIONS

Relevance: The project was highly relevant to the needs and priorities of the local Forest community. It addressed critical issues of biodiversity loss, ecosystem degradation, and unsustainable land use practices. The project's alignment with community needs for forest

restoration, alternative livelihoods, and environmental education underscores its strategic importance.

Effectiveness: The project achieved significant outcomes in terms of forest restoration, community engagement, and livelihood improvements. Approximately 75 hectares of degraded forest land were successfully restored with over 200,000 trees planted in the forest and institutions. The involvement of around 1,000 farmers in agroforestry and other activities highlights the project's effectiveness in promoting sustainable practices. Community knowledge on environmental conservation was markedly increased, contributing to long-term environmental stewardship.

Efficiency: The project demonstrated a high level of efficiency in utilizing financial and human resources. Prior planning involving with CFA leaders and KFS, and adoption of equitable work allocation mechanisms minimized delays and enhanced timely execution of project tasks. With a total cost of Ksh. 7.6 million, the benefits, including restored forest areas, community livelihoods, and environmental education, far outweighed the costs and will be enjoyed by the community for many years. The timely delivery of seedlings and effective use of local labor for restoration activities further exemplify the project's efficient resource management.

Impact: The project had a profound socio-economic and environmental impact. It not only enhanced biodiversity and ecosystem stability but also improved livelihoods through employment opportunities and alternative income sources. Community members, particularly women and youth, benefited significantly from the project, leading to improved social cohesion and reduced idleness and substance abuse. The project's influence on community attitudes towards forest conservation and their newfound sense of ownership are notable long-term impacts.

Sustainability: Several aspects of the project are sustainable, particularly those embedded in community practices and knowledge. The enhanced capacity of CFAs, and those of the scouts, and the established tree nurseries are likely to continue contributing to forest conservation efforts. However, the sustainability of certain coordination functions, such as ongoing monitoring and the role of scouts, may require additional support and resources to maintain momentum. The community's commitment to environmental stewardship and the development of local governance structures will be critical for sustaining these efforts.

Overall, the project stands as a model of community-led forest restoration and sustainable development. Its relevance to local needs, effectiveness in achieving significant environmental and socio-economic outcomes, and efficiency in resource utilization are commendable. The project's positive impact on biodiversity, livelihoods, and community knowledge underscores its transformative potential. While some coordination functions may require continued support, the overall sustainability of the project's outcomes is promising, driven by strong community engagement and ownership. The lessons learned and best practices documented from this project provide valuable insights for future initiatives aimed at environmental conservation and community development.

The scaling and replication strategy for the project needs to be clearly outlined to emphasize the potential for upscale opportunities. This includes identifying the areas where the project can generate a multiplier effect and extend its impact beyond the intended targets and beneficiaries. By highlighting these aspects, we can better understand the project's broader implications and potential outcomes.

5. RECOMMENDATIONS

1. Strengthen school greening programmes.

The evaluators noted that while older students recognized and related to project activities, younger students had limited awareness and knowledge in environmental restoration and conservation. There is need to incorporate regular (bi-annual or termly activities) 'booster' educative environmental activities after initial planting. This supported by appropriate resources such as Grade and Form-specific books, magazines and other relevant literature can result in high engagement of learners and bridge this gap and sustain interest in conservation efforts. Therefore, increase the frequency and depth of environmental education and motivational talks, particularly targeting new learners and younger students in schools. This will help to develop and sustain a culture of environmental stewardship from an early age.

2. Enhance capacity building and support for local organizations

KIIs and FGDs indicated that CFAs played a crucial role in project implementation. Strengthening their capacity will ensure continued forest protection and community mobilization efforts. Continue and expand capacity-building initiatives for Community Forest Associations (CFAs) local community to ensure they can sustain and scale the project's activities independently. Additional trainings on nature-based solutions, leadership and climate change are also recommended.

3. Improve local support for monitoring and evaluation

There is need for a structured local support in ensuring that these functions remain effective and community-driven. Establishing a structured monitoring and reporting system for restoration activities, involving local scouts and community members to track progress and identify challenges in real-time would be vital.

4. Enhance sustainable livelihoods and economic opportunities

The project significantly improved livelihoods through agroforestry and employment opportunities. Expanding these initiatives can further enhance economic stability and environmental conservation. Diversify and/or scale up sustainable interventions aimed at optimizing the productivity of the small farms such as agroecology, and more alternative livelihood strategies like tree nursery businesses, and nature-based enterprises. These will help to reduce pressure on forest resources and strengthen community resilience.

5. Empower community-led environmental governance

FGDs revealed that the project spurred the formation of self-help groups and community organizations, enhancing social support and cohesion. Formalizing these structures can strengthen community governance and conservation efforts. Foster the development of local governance structures and self-help groups to enhance community cohesion and collective action towards forest conservation. Potential initiatives include development of nature-based cooperatives.

6. Ensure long-term sustainability of restoration efforts

The continuation of coordination functions, such as monitoring and reporting by scouts, requires sustained support. Ensuring financial and institutional backing will maintain project momentum. Secure funding and partnerships to support the ongoing coordination of project activities, including facilitation for scouts and other key roles critical to the project's success. Introduction of nature-based enterprises such as ecotourism, bee keeping and learning centers can enhance sustainability of restoration initiatives,

7. Diversify climate adaptation strategies

The project positively impacted on local climate adaptation and resilience. Building on these strategies can further protect the community and environment from climate-related challenges. Develop and implement comprehensive climate adaptation plans that incorporate local knowledge and practices, enhancing community resilience to climate change impacts, and explore payment for ecosystem services models.

6. Annex 1

i. Evaluation Tools

- End life evaluation tools Phase 1a and b

ii. Terms of Reference

iii. Evaluation matrix

iv. Fieldwork schedule

v. List of respondents and description of focus groups

vi. Biography of the evaluation team