



ANNUAL PROGRESS REPORT

2021-2022



NOVEMBER 30, 2022
GREENING EARTH FOUNDATION

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Message from the Board

On behalf of the Board of Directors and team of Greening Earth I am pleased to share with you our 2021/22 Annual Report. It was an unbelievable moment when we started thinking of establishing and implementing the project to capacitate neglected rural poor families to fight various sources of poverty. We thought covid-19 would be a great setback to reach these families in Tanzania. As we all continue to navigate the challenges and impact of the past two years, I am inspired by our Board, volunteers, and team as we organized ourselves from different corners of the country, held our hand together and remain cohesive, strategic, compassionate, and humble with a focus on delivering on our mission and vision to help rural poor families fight various sources of poverty in a sustainable way regardless of the challenges and setbacks faced.

I also want to share my deep appreciation for you, our donors, who make it possible to serve families each day. Thanks to your support, despite pandemic challenges, you remained open, enabling us to provide support and services for the rural poor families in Mgongo-Tanzania. It was the time we were organizing ourselves to have a cohesive strong team with common understanding. We restructured here and there in human resources but also in our budgets which in one way it was affected by price inflation caused by the pandemic and the Russian-Ukraine war but you remained calm and flexible to the situation. We truly thank you for this wonderful help.

The inherent and inevitable tension between farming and conserving the environment cannot be underestimated. The restoration of severely degraded landscapes should be an essential priority for finding a sustainable balance between agriculture and environmental conservation. People living in rural areas need to grow food to eat and earn an income. Alternative sources of income should be made available to families to help reduce tensions on the land, which greatly facilitates land degradation. Crops and livestock are resource hungry and can negatively impact the environment, resulting in lower farm yields.

For hundreds of years, forests were burned or felled in order to free up space for cultivation. Overgrazing has made green rangelands infertile. Smudged forests and rangelands, no longer able to safeguard temperature extremes, hold water and hold onto topsoil have reduced the yield of local farms, making it harder for farmers to earn a living.

Implementing innovative solutions to achieve the right balance between food production and sustainable environmental conservation is at the core of greening Earth. Right now, with food production threatened by overpopulation, declining resources and climate change, our top priority is finding an effective balance between agriculture and nature.

Similarly, in Mgongo-Tanzania, they are confronted with three enemies that are ignorance hunger and illnesses that lead extreme poverty. Greening Earth aims to empower poor rural families to address diverse sources of disease and change their mind toward sustainable use of natural resources. We believe the health community is responding to their needs by setting immediate development goals if empowered.

Chairman of the board
Greening Earth foundation

We are -Greening Earth

Is a non-profit organization that aims at alleviate poverty and facilitate lasting changes in the lives of the most vulnerable sisters and brothers living in rural areas of the world. GE tackles root causes to end poverty and other violence against brothers and sisters in the most fragile places of the world where restoration of the severely degraded landscapes plays a central role. Reaffirming our responsibility to contribute towards the human development and upholding, nature and abide by the core values of volunteerisms, tolerance, gender equality, non-discrimination, participation, transparency and accountability.

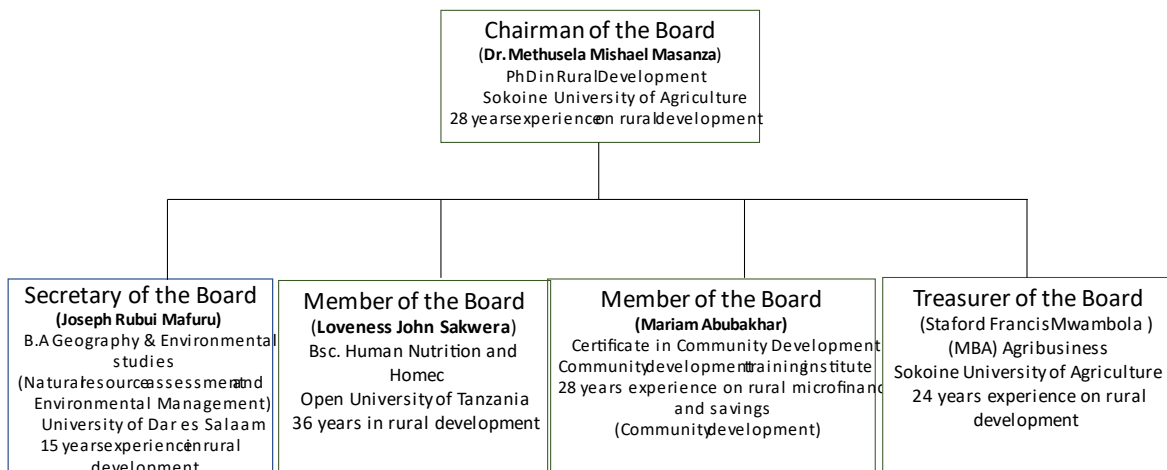
Our organization structures

Due to country regal requirement, the board have to consist of at least 5 members with gender consideration. The GEF INGO added another two board members to make them five for the fulfillment of the regal requirement. The chart bellow shows the organization structure of the board with the other two members included.

Board of Directors' Organization



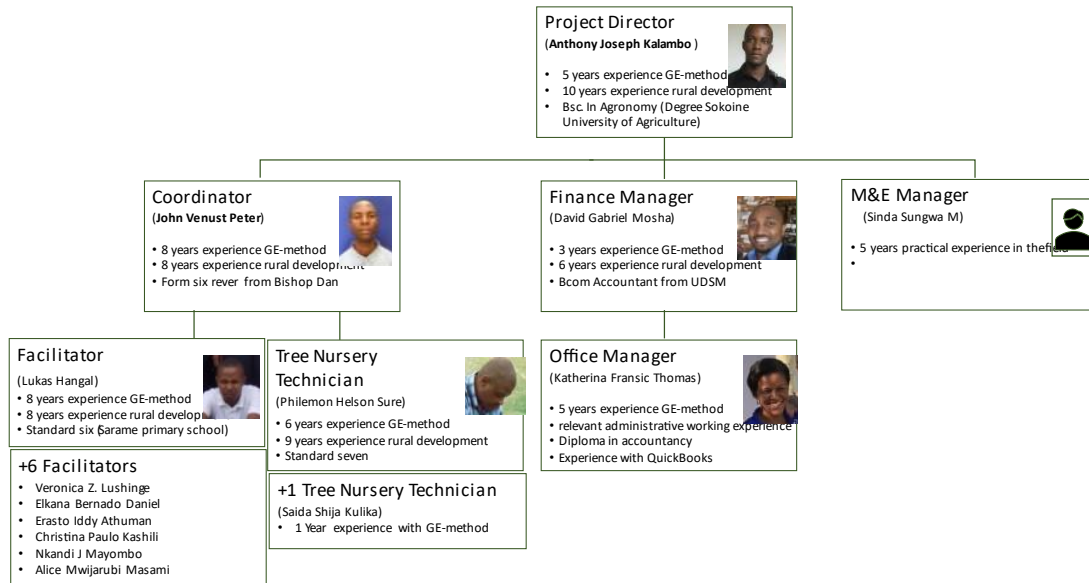
The Board of directors' Organization



Project Organization



The Project Organization



Executive Summary

Greening Earth Foundation aims at building sustainably developed communities paying attention to restoring the severely degraded landscape and advocating sustainable use of natural resources. To this end, GE focuses on tackling the underlying root causes of poverty so that the people it serves can reach their full potential and contribute to economic growth. In 2021/22, GE worked to develop a better future for vulnerable families in Mgongo-Tanzania include restoring severely degraded landscapes, community health, alternative economic sources to families, social cohesion and primary and secondary education.

Early December 2021, Greening Earth foundation launched its first project in Mseko Village, Iramba district in Singida Region. A total of 898 families were inscribed to participate in the project. Approximately 2,694 direct beneficiaries and 5,388 indirect beneficiaries were reached. 14 competitive groups were formed out of 898 families. 34 men and women jurors were selected and trained on the methodology and were used to get the winners of the contest out of the groups. 132 families won prizes of different levels.

Two nurseries were built in Mseko village with the capacity to carry 300,000 seedlings of timber, fruits, and fodder tree seedlings. In the 2021/2022 planting season 115,808 seedlings of timber, fruits and fodder trees were raised in Mseko. 8600 fruits seedlings were purchased from Morogoro. 70,031 seedlings were distributed to farmers and planted, making an average total of 92 hectares being planted inclusive of timber, fruits and fodder. 381 families improved their homes, 258 families plastered their houses, 204 builds improved stoves, 134 builds cupboard, 175 construction improved latrines 106 dug landfills, 37 established kitchen garden, 14 constructed shallow wells and 24 constructed rain water harvesting tanks.

Out of 898 families inscribed 14 women producer groups were formed with the capacity of 30 member each. They started with being trained on dairy goats farming. 28 female goats were distributed to the groups each with 2 goats. However, 4 male goats, one each sub-village were distributed too. The groups were also trained on village saving and loan associations technical know-how. They started saving and lending money. 26,416,050 Tsh saved for the whole year. Two bulls were introduced in the village to improve production of local animal breed. 23 stables were built by pastoralist ready for breed improvement. However, animal dip was constructed to facilitate sanitation, control of pests and diseases to animals.

Capacity building to pastoralist and agro-pastoralist families to send their schooling age children to send them to school. Reducing excessive child farm labor of school children during school hours to reduces dropout rate. Environmental clubs were established in the five schools of the whole ward. The aim was to impart environmental conservation technical know-how to school children, who grew up knowing their responsibility is to degrade and no to conserve the environment.

The organization extended its working area to two more villages, Kizonzo and Mgongo. The project was lunched on October 1st 2022. Two nurseries constructed one in each village. 89,949 timber tree seedlings raised in nurseries and will be given freely to families for planting. 15000 fruits tree seedlings were purchased from Morogoro and given to families. The detailed report of the second project will come after six months of its operation.

Introduction

We are degrading our ecosystems in serious ways. This means they are losing their integrity, their biodiversity and their ability to provide essential services. We can no longer deny that we are a part of our environment, which we are degrading at an alarming rate. However, the need to restore damaged ecosystems has never been greater. Degradation is undermining hard-won development gains and threatening the well-being of today 's youth and future generations, while making national commitments increasingly more difficult and costly to reach. In order to embark on a more sustainable pathway, we need both to conserve and restore ecosystems. Farmlands sustain human life. They provide us with food, fibre and other essential products and also supply biodiversity habitat, economic opportunities and spiritual and cultural benefits (UNCCD 2017).

85% people in rural poor community mostly depend on the agricultural sector for their livelihoods, particularly poor and rural populations. Agricultural land degradation is reducing crop and livestock vintages. While farmland degradation typically involves harm to soils (FAO and ITPS 2015), it also results in the loss of wild species that provide pest control and crop pollination (Dainese et al. 2019). Soil erosion alone affects roughly one-fifth of farmlands worldwide and is estimated to have increased by 2.5% between 2000s and 2010s, primarily due to deforestation and cropland expansion (Právělie et al. 2021).

In Tanzania, land degradation is having a significant impact on crop productivity, and hence on local livelihoods and the overall economy. People are suffering the consequences of the climate emergency, food and water insecurity. Soil nutrient mining when crop producers remove more nutrients from the soils than they apply is leading to lower crop production. Ecosystems are an indispensable supporter as we meet these challenges. Protecting them and managing their resources in a sustainable manner is essential. But just increasing the protection and sustainable management of our remaining natural landscapes will not be enough. The planet's degraded ecosystems and the huge benefits that they provide must also be restored.

We need to recreate a balanced relationship with the ecosystems that sustain us. Far from being something that is 'nice to have', restoration is essential to mitigating climate change, ensuring food security for a growing population and halting biodiversity loss. Poverty is partly a consequence of land degradation and, in certain circumstances, can exacerbate damage to ecosystems. Gender inequality plays a significant role in land-degradation related poverty (UNCCD 2011). In developing countries like Tanzania, agriculture is the most important source of income for women (ILO 2016), who bear the brunt of degraded soils, unpredictable rainfall and displacement. Although women are often stewards of the environment, lack of secure land rights can increase the likelihood of degradation (Mor 2018), which can in turn expose women and girls to a greater risk of gender-based violence like when they are forced to travel longer distances to collect fuelwood.

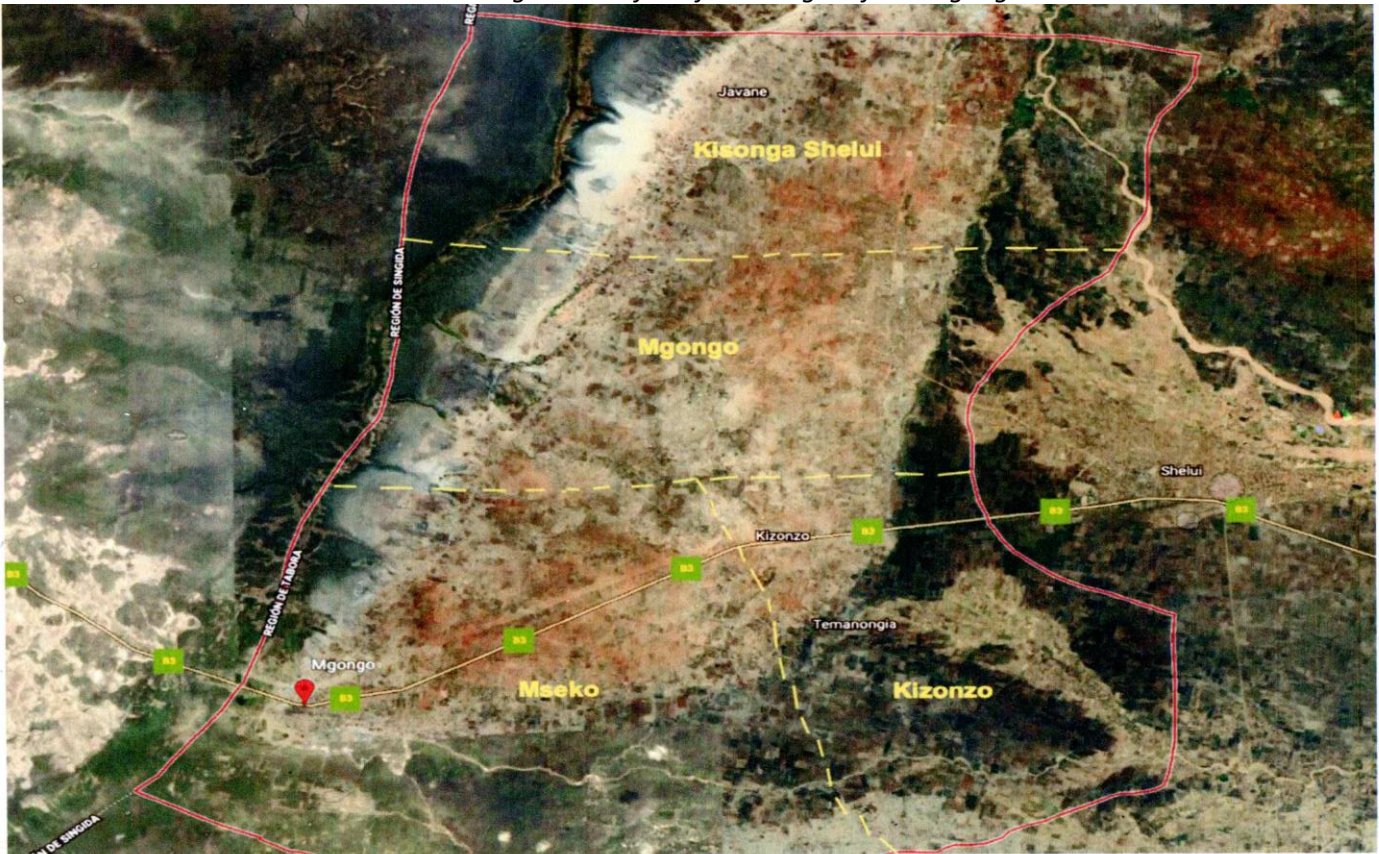
Restoring degraded ecosystems has tremendous potential to advance the achievement of all Sustainable Development Goals (IRP 2019a; Ramsar 2018), often contributing to several goals at once. Reviving ecosystems and other natural solutions could contribute over one third of the total climate mitigation needed. Restoration can also curb the risk of mass species extinctions and future pandemics.

We have to promote families to own the process of reclaiming the degraded landscape while increasing their economic potential. Imposing rules and regulation on conserving the environment without creating awareness on their advantage would do nothing. They are looking to satisfy their basic needs, while doing so they destroy the ecosystem. Rules and regulation will not give their basic needs. We have to give them alternative solutions to sustain their basic needs in a sustainable way.

1. Where we work

Singida region in Tanzania is among the top three hotspot regions for degradation and specifically in Iramba districts where the Greening Earth project works. Mgongo ward is among of the nine wards in the Iramba district. Mgongo ward has four villages, Mseko, Kizonzo, Mgongo and Kisonga shelui. The organization launched its first project on December 1st 2021 in Mseko village. GE1 project worked in the village for eleven months before second project GE2 was launched in the other two villages of Kizonzo and Mgongo.

Picture 1: showing borders of the four villages of the Mgongo ward



The organization is expecting to extend further its working area to the village of Kisonga Shelui that was left behind. There are many other wards that suffer similar conditions as the Mgongo ward with extreme poverty and serious degradation of the landscapes they need attention to rescue food insecurity that may lead them to extreme poverty.

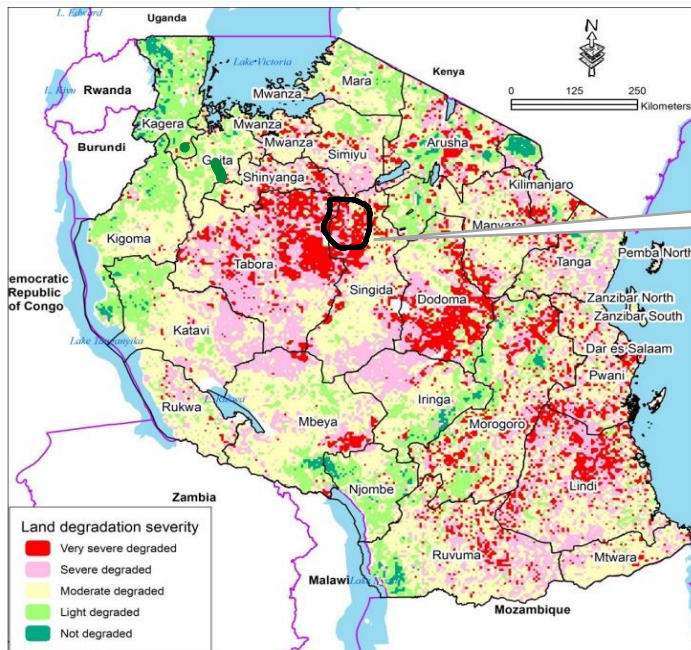
The project is located in an area which is severely affected by degradation of natural resources. In Mseko village the land justifies its infertility resulted from degradation. The village is located alongside the tarmac road on the highway from Dar Es Salaam to Rwanda and Burundi at the bottom of the lift valley.

Mseko village where the project operates is one of the four village of the Mgongo ward and part of the semi-arid lowlands located at an altitude of 1064 meter above sea level. Annual rainfall in the village is 400mm which make it the driest area of the Iramba district. 85% of the people in the village are low-income level. They live under 1 \$ per person per day. They normally depend on subsistence farming (hand to mouth agriculture).

Their land is highly degraded leading to low crop production per unit area. To cover the gaps, they have to cultivate a large area harvesting the nutrients without replacing them to compensate.

Poverty and degradation dominate the area. Poverty drives families to exploit more of their land, whether its crop cultivation or animal husbandry both activities depend on weather for their return. Seasonal over-exploitation leads in turn to the depletion of the fertility and productivity of land and pastures, intensified by poverty.

map 1: showing hotspot for degradation in Tanzania



2. Methodological background

Greening Earth Foundation uses the methodology that was initiated 30 Years ago in Latin America, in a rural development project. It was designed to improve living conditions in rural communities suffering from severe degradation of their natural resources that led to extreme levels of poverty.

Two questions were answered by the methodology;

- ✔ Why so many development programs funded but have developed little impact among rural farmers.
- ✔ Why many agricultural development technologies have developed and improved but hardly adopted.

The goal of the projects using this methodology is to eliminate poverty, improve living conditions, restore the natural environment and to introduce sustainable use of natural resources. The projects aim primarily to change of mindset of the participating communities to bring about behavioral changes that result in sustainable development.

Participation is among of the secrets of why the methodology is so successful on capacitating rural poor and vulnerable families to adopt innovative activities for their sustainable development. The 2 elements that make the methodology successful are peer learning and strong motivation through the competitions. The methodology proved its efficiency providing alternative development activities to families and have widely adopted in the globe. Tanzania is among of the country where the methodology has proved its efficiency. The methodology requires a high percentage of the population to participate in the project innovations and interventions introduced. Normally over 90% of the households in the project area have to participate.

Mseko village according to the 2012 census the total number of families given from the government sources; the village consisted of 645 families. After registering the families to participate in the

project innovations, 892 families were registered. Resulting to 138% families being registered to participate.

Data shows how strongly pressure on the land it is. Just in 10 years there is an increase of approximately 40% families. These families also need land for animal herding and crop cultivation. Apart of 40% families increased 30% of the families they have shifted from one place to the village (village chairman). They opened land for crop cultivation and animal husbandry leading to degrading the land because they do so without any conservative measures.

Table 1: Total number of households inscribed to participate in the project initiatives

Total number of families in Mseko					
no.	Name of Sub-village	Total no. of families	no. of families registered	no. of groups	% Registration
1	Mwamulula	140	221	4	158%
2	Mseko A	85	88	2	104%
3	Malendi	300	375	5	125%
4	Mseko B	120	208	3	173%
GRAND TOTAL		645	892	14	138%

3. Motivational tools

The three motivational tools that are used by the project seem to be the greatest lure to attract poor families generate their development in a sustainable way. The methodology uses three motivational tools which are

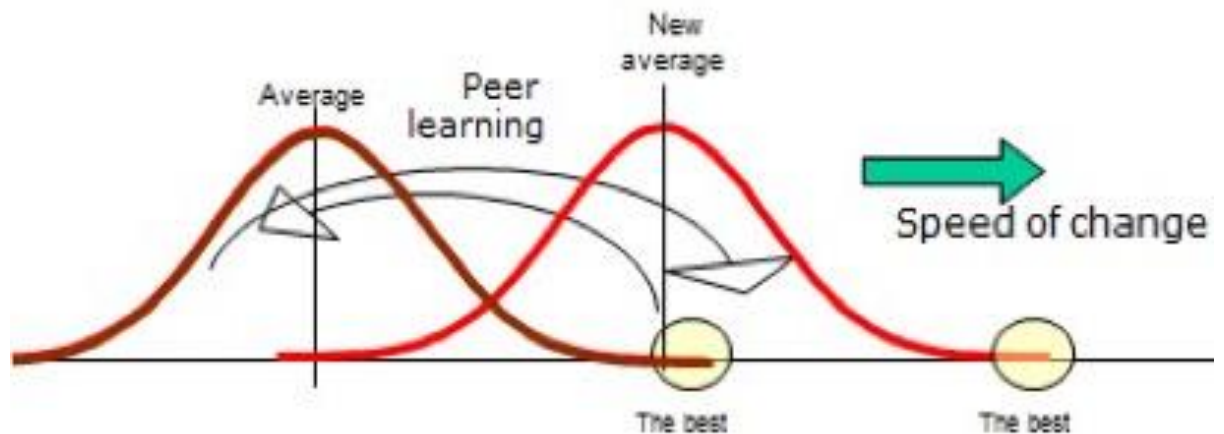
Three Years of project implementation.

The methodology last for three years in an area where the project acts. The relatively short time creates an alarming alert to slow adopters to make sure they have to implement the innovative activities introduced with the time flame.

Peer learning

Learning from each other and adopting the best practices. Expert farmers train their fellow farmers. It influences the ownership spirit. Farmers must go on local and regional study tours Where they see other successful farmers who do the same activities as they are capacitated to do what these expert farmers do; they can also do and do it better. Four study trips were made to Magugu. Farmers from Mseko were sent on study trips to go and learn from their fellow farmers. A number of 120 farmers attended the training. Other 173 farmers including juries were trained in the nurseries at Mseko. However, family to family visiting and training famers were done by the project staff.

The speed of change can be explained by the sketch below



Competition

Families are grouped into competitive groups, winners to be rewarded with prizes. It is the strongest element to motivate and spearhead self-development of families. It facilitates to break the vicious circle of environmental degradation and rural poverty by reclaiming natural resources introducing sustainable management. It motivates to participate and apply the innovations through contests that reward the best implementers.

4. Output and outcome of the project

The output and outcome of the project results from the five strategic area targeted. Ecological restoration and sustainable use of natural resources, improving living conditions and community health, strengthening social cohesion, improving family income and improving primary and secondary education are the five strategic area capacitated to communities. Tactics and expected results were created to achieve the five strategic areas. Targets and its activities are as explained below;

Target #1: Ecological restoration and sustainable use of natural resources

Stopping land degradation is among of the biggest challenges in the third world country particularly in Tanzania where pastoralist, Agro-pastoralist and crop farmers are not self-sufficient. They degrade the land when opening farming and pasture land. They don't take care of the land because they don't think if they part of the degraded land and its impact. Unpresented rates of soil erosion and growing food insecurity are increasing at alarming rate.

Greening Earth proposes different discourse on how to engage families in stopping land degradation to retore the ecology. It aims at introducing sustainable change toward enhanced food production and sustainable land use and natural resources. The challenge is more for rural poor and depressed families who depend on subsistence farming. The project gives answers to the question, " what strategies can reverse land degradation and declining food insecurity?". More international aid has received but hardly any progress was made in alleviating poverty and food insecurity.

The project pays attention to agricultural production and land degradation using approaches that have essential elements of sustainability like building local ownership, capacitating and motivating farmers. It believes, combatting land degradation and food insecurity cannot be done by top-down interventions. Only the self-reliant effort of poor and oppressed rural families can end poverty by fighting land degradation and food insecurity when capacitated. Hence Greening Earth facilitate bottom-up community-based development and enable farmers to tackle land degradation themselves by facilitating farmers-to-farmers training and knowledge sharing.

Population is increasing dramatically leading to food scarcity due to poor crop production associated with poor soil fertility and unreliable rainfall. The project target is to increase ecological activities by capacitating families in Mseko to plant trees, practice sustainable farming, managing natural resources for the future generations.

🌱 To construct (2) two nurseries with the capacity of producing 150,000 seedlings each

Two nurseries were constructed with the capacity of 150,000 seedling each to meet the target. The target was achieved by 100% and it will be dropped in the next reporting season. Nurseries are operated in joint collaborations between the village council and the project. The village council gave the areas where the nurseries were constructed and the project constructed the nurseries.

The village council must organize community members to come and fill the tubing pots with soil. The project has to raise the seedlings. While raising the seedlings, juries and other volunteers from the village are trained on how to raise seedlings. Leaving the knowledge on how to raise seedlings, collaboration with the village council and community members to come in the nurseries to fill the tubing are part of the strategy to create sustainability of the innovations introduced in the village.

When the seedlings are fully raised in the nursery and are ready to be planted in the main field community members will be alerted to come and receive these seedlings freely of charge in the nurseries and plant them to their farms. Before they have to be trained on how to plant and take care of the seedlings. The seedlings raised are timber, fruits and fodder seedlings. The target for the Mseko village to raise 300,000 seedlings each year.

🌱 At least each family in Mseko village to plant 400 timber trees per year.

The target is to capacitate each family with 400 timber tree seedlings from the nursery. During the 2021/22 planting season, the project managed to raise 115,808 seedlings of different species in the nursery. Out of 115,808 timber seedlings, 71,322 timber seedlings were distributed to farmers and 70031 timber seedlings were planted. Making a total of 51.2 Hectares to be planted with timber tree seedlings during the 2021/2022 planting season. In that case the target was achieved by 20% means an average of 80 timber tree seedlings was planted to each 892 families registered to participate in project interventions.

The project started its implementation late in December 2021. The seedlings were planted very late in the planting season. Complemental irrigation carried out to support the survival rate of the planted seedlings. Tables number 4 and 5 below describe the total number of timber tree seedlings raised and distributed to farmers against the number of acres covered.

Picture 3: a farm planted with acropous timber tree seedlings in Mseko village



Table 2: Timber tree species raised in the nursery in Mseko village during the 2021/2022 planting season

Seedlings raised in the nursery					
s/n	tree species	Seedlings raised	Distributed	Death on transport	remained in nursery
1	<i>Acrocarpus fraxinifolius</i>	41563	34,647	900	5,016
2	<i>Azerachta indica</i>	21,409	12,929	800	7,680
3	<i>Tectona grandis</i>	4,020	1,540	400	2,080
4	<i>Cedrela odorata</i>	28,584	22,206	500	5,878
5	<i>Casuarina equetifolia</i>	16,722	00	78	16,644
6	<i>Trichilia emetica</i>	3,510	00	00	3,510
TOTAL SEEDLINGS		115,808	71,322	2,678	40,808

Table 3: Acreages planted with timber trees in Mseko village per sub-village during 2021/2022 planting season

Total number of acres planted by timber trees in Mseko				
s/n	sub-village	# Seedlings taken	# Seedlings planted	Area covered (acre)
1	Malendi	8,750	8,701	16
2	Mwamulula	7,801	7,385	13
3	Mseko B	42,923	42,418	78
4	Mseko A	11,848	11,527	21
TOTAL		71,322	70,031	128

In November 2022, preparation for the 2022/23 planting season started. 282,614 pots were field with soil and 159,456 timber tree seedlings were raised out of the pots filled till the end of November 2022. Data shows that 275264 timber tree seedlings were raised in the two nurseries during the first year of project implementation. The tables number 2 and 4 shows the species raised and its quantity.

Picture 1; *Acrocarpus flaxifolius* timber tree planted in 2021/2022 in Mseko village



Table 4; species and number of seedlings raised in the nurseries in Mseko village

Timber tree Seedlings raised in the nurseries				
s/n	tree species	# Seedlings raised	# Seedlings raised	Total
	Nurseries	A	B	A+B
1	<i>Acrocarpus fraxinifolius</i>	31,405	31,880	63,285
2	<i>Khaya Asoceca</i>	3,675	4,140	7,815
3	<i>Tectona grandis</i>	567	205	772
4	<i>Cedrela odorata</i>	39,620	28,364	67,984
5	<i>Jacaranda</i>	7,240	-	7,240
6	<i>Pinus patura</i>	5,040	7,320	12,360
TOTAL SEEDLINGS		87,547	71,909	159,456

Therefore, a total of 275,264 timber tree seedlings were raised in the nurseries during the first fiscal year of the project implementation. Out of 275,264 seedlings raised, 71,322 seedlings were distributed to farmers and 70,031 planted in their farms making a total of 70 hectare being planted by timber trees as described in the table three above.

 **Each family in Mseko Village to plant at least 15 fruits tree of three different species**

In order to meet the short-term goal, the project-initiated fruits tree farming in the village. The aim is to combat the devastating increase of food insecurity and lack of alternative economic sources. Lack of alternative economic sources and increased food insecurity spearheaded environmental degradations while community looking to meet its basic needs.

10100 fruits seedlings of different species were purchased from Morogoro. 8600 fruits seedlings were planted during 2021/22 planting season and 1500 fruits seedlings will be planted in the 2022/23 planting season. However other fruits seedlings were raised in the project nurseries. Tables below shows the total number of fruits purchase, raised in the nurseries and given freely to farmers for planting. Either according to table 7 and 8 an average of 13 fruits tree seedlings were given and planted to each family in Mseko village. These make the target of capacitating families with 15 fruits tree seedlings of at least three different species to be achieved by 87%.

Table 5; Fruits seedlings purchased from Morogoro

Fruits Seedlings purchased from Morogoro				
s/n	tree species	# Seedlings		
	Phases	1 phase	2 phase	Total
1	<i>Mangoes</i>	4,000	1500	5,500
2	<i>Lemon</i>	600	0	600
3	<i>passion</i>	1,000	0	1,000
4	<i>Oranges</i>	2,000	0	2,000
5	<i>Guava</i>	500	0	500
6	<i>Anona Mulcata</i>	500	0	500
TOTAL SEEDLINGS		8,600	1,500	10,100

Table 6; fruits seedlings raised in the nurseries during 2021/2022 and 2022/2023 planting seasons

Fruits Seedlings raised in the nurseries				
s/n	tree species	# Seedlings		
	Nurseries	A	B	A+B
1	Mangoes	1,800	0	1,800
2	Lemon	6,690	0	6,690
3	passion	5,250	0	5,250
4	Avocado	1,300	0	1,300
5	Guava	14,040	7040	21,080
6	oranges	1,000	0	1,000
7	jackfruits	200	154	354
8	pomegranate	200	0	200
9	Banana Plantain	621	0	621
10	Papaya	4,500	1500	6,000
TOTAL SEEDLINGS		35,601	8,694	44,295

Table 7: total number of seedlings that were given freely to farmers in Mseko per sub village in 2021/2022 planting season

Sub-Village	Mangoes	Guava	Orange	Annona spp	Lemon	Passion	Banana plantain	Jackfruit	Papaya	Total
Malendi	1263	198	905	193	294	309	237	167	1210	4,776
Mwamulula	523	94	329	116	128	160	43	23	623	2,039
Mseko B	819	121	309	127	112	150	26	7	585	2,256
Mseko A	588	47	306	47	74	138	8	3	350	1,561
Total	3,193	460	1,849	483	608	757	314	200	2,768	10,632

To ensure the sustainability of the project interventions. Educational institution is capacitated in conservation measures and suitable use of natural resources. Via school clubs and church leaders, the project is imparting technical know-how to the young generation so they grew up with knowledge on environmental conservation and sustainable use of natural resources. Table 5 describes the institutes that were capacitated with fruit trees and students were given priority. They were trained to ensure they all understand the importance of planting trees. The fruit trees are all doing well in the fields they were planted.

Table 8; number fruits seedlings given to the institution during 2021/2022 planting season

No	Name	Mangoes	Oranges	Guava	Annona mulicata	Lemon	Passion	total
1	Mseko primary school	120	20					140
2	Kizonzo primary school	120	40			30	30	220
3	Kibululu primary school	90	120					210
4	Mgongo secondary school	110	30	16	10	10	10	186
5	Mgongo primary school	88					12	100
6	Ward council	42	37	8	4	16	14	121

7	Seventh Adventist church (Jeremiah)	10	4	5	2			21
	TOTAL	580	251	25	16	56	66	994

The project managed to raise Papaya, Mangoes, Lemon, Passion, Avocado and Banana plantain. Mangoes, Lemon and avocado were raised as rootstock for improving their genetic quality by grafting and budding. They were purposely established for the next planting season as well as passion fruits.

♥ Each Pastoralists and Agro-pastoralist to plant at least one acre of animal feeds as a preparation stage for breed improvement.

Although diseases and poor genetic quality are a setback to animal breeding in rural poor families but, the greatest setback now days is lack of animal feeds. During the dry season (August to November) pastoralist and agro-pastoralist they meet their greatest challenge of where they can get enough feed and water for their animals. They move randomly within the village looking for place where they can feed their animal. Some of them they have to move to other places looking for pasture.

Pasture land are greatly degraded in the village. Browsers-grazers animal like goats, sheep and donkey they feed on the potential pasture seed when there are no grasses on the land. Leaving no seed to germinate on the next season. Most of the grasses that geminate on the ground are not palatable to animal. Thistles (*Tribulus terrestris*) is widely dominating pasture land, depressing grasses that are useful to animals.

picture 1; thistle dominating the pasture land with alarming rate



Immediate efforts are needed, to remove the weed and capacitate pastoralist with fodder and grasses to plant for their animal. The situation is going to be even worse in five to ten years to come. Degradation will increase perhaps for more than 10% in the area where there will be no immediate effort to help the situation.

The project is capacitating farmers in Mseko to grow fodder and grasses for their animals. Mainly its aim is to ensure there is enough animal feed. *Cenchrus ciliaris* grass, *Gliricidia sepium*, *Leucaena leucocephala*, *Pastorale Maralfalfa* (*Pennisetum* spp) and *Lablab purpureus* are the fodder and grasses grown by farmers in Mseko. 7.5 hectares cultivated with animal fodder in the village. More effort is put to make sure the innovation is adapted by more pastoralist.

In consultation of veterinarian and animal breeder the project purchased Friesian and Ayrshire bulls. The aim is to improve their animal breed production in terms of milk and meat production. Farmers are trained to build stables. Out of their animals they have to select two female cows, put them in the stable and feed them indoor for breed improvement. He/she will opt either to use Ayrshire or Friesian bull to inseminate the female cows put in stable. The calf that will be born it will be a hybrid. That means it will be improved half way in milk and meat production. 24 cow stables were built in the village ready for breed improvement.

Picture 4; showing the effort taken to capacitate farmers to grow fodder for their animals



Animal stable constructed for breed improvements and adopt indoor breeding

Women were capacitated with dairy goats as alternative source of income as well as improving diet to the families. Due to the calamities faced by pastoralist on breeding animals during dry season, the Project decided to capacitate women with dairy goats. Women were grouped to 14 women groups. The groups had the total of 30 members each. They were capacitated 2 dairy goats each group and 4 bulks in the village one each sub-village. New born will be assigned to each group member. In five years, each family will have dairy goat. It will facilitate availability of milk in the village for the whole year and contribute on solving malnutrition. Table 11 bellow show the number of women groups. Out of 28 goats, 15 have gave birth. There are 17 calf in the groups and two goat among of the gave twin calf.

Table 9: number of women groups ready for dairy goats

women goat groups					
s/n	Group name	Sub-village	# of members	# of goats	Stable
1	Amani	Mwamulula	27	2	Already constructed
2	Nguvu moja	Mseko B	25	3	Already constructed
3	Muungano	Mseko B	16	2	Already constructed
4	Juhudi	Malendi	18	3	Already constructed
5	Mshikamano	Mpambala	23	2	Already constructed
6	Agape	Mseko A	16	3	Already constructed
7	Jipe moyo	Malendi	30	2	Already constructed
8	Faraja	Malendi	23	2	Already constructed
9	Sauti	Mseko B	26	2	Already constructed
10	Tunaweza	Mpambala	21	2	Already constructed
11	Azimio	Mwamulula	15	3	Already constructed
12	Ukombozi	Mseko A	16	2	Already constructed
13	Mkombozi	Malendi	21	2	Already constructed
14	Umoja	Mwamulula	18	2	Already constructed
TOTAL				32	



Animal husbandry improvements for sustainable environment

The quality and quantity of livestock products depends very much on the health of the animals. Control of pests and diseases for animals should be first priority to pastoralist and agro pastoralist. Control of pests and diseases in Mseko it was not really practiced. The sanitary animal dip it was 35km away from the village in Kisonga shelui. It is not easy for each pastoralist after every two weeks to move to Kisonga shelui for sanitation of animal.

During the public meeting amongst the challenges mentioned by community members was lack of animal sanitary dip in the village and water for their animal. In dry season they have to move a far distance in search of water for their animal and domestic use. They requested if there is possibility to be supported with sanitary dip and repair of their damaged pond. The project worked on it and has supported the village with one sanitary dip and repairing of its damaged water pond.



Target #2: improving family living condition and health

- ✔ At least 90% of the households are inscribed to participate in the project activities and implementations;

Participation means households are plastering their houses, they have improved kitchens with smoke-free inside and cupboards to store their utensil, they have a landfill, they use mosquito nets, they have first aid kit, have permanent latrines and they use it. Households were registered, and inscribed households' total numbers were more than the given household total number from the village office see table 1 above.

After registering the households, 14 groups were formed from the registered households. 28 juries they come out from the grouped households. 5 facilitators were employed from the groups and two were outsourced. The outsourced were experts on serving groups and education.

During the first fiscal year of project implementation, home improvement was among the activities trained and capacitated by the project team in Mseko. The training was via sub-village meetings and family-to-family training. Plastering of houses, building of improved smoke free stoves, building of cupboard for storing utensils, construction of permanent latrines and installation of hand washing facilities, general cleanness of environment around homes, and farming of kitchen garden was among the components trained. Families were trained in the construction of shallow wells and rain water harvesting tanks. The results of these are home improvements are shown in table 11

Table 10: household improvement and living condition

		Mseko village								
		number of hoshelds improved per sub-village in Mseko village								
s/n	sub-village	# Families inscribed	# Plastered houses	# Improved stoves	# Cupboard	# Landfill	# improved Latrines	# Kitchen garden	# Shallow wells	# rain water harvesting tank
	Mseko A	88	39	35	19	17	29	4	0	1
	Mseko B	208	55	44	36	45	44	6	1	4
	Malendi	375	92	92	47	26	62	11	13	6
	Mwamulula	221	72	33	32	18	40	16	1	13
TOTAL		892	258	204	134	106	175	37	14	24



Target #3: Improve family income by diversifying earning sources and savings to families

Income diversification is an important strategy for rural household to manage drought risks in arid and semi-arid areas. This diversification of earning sources by households provides alternatives to earnings from agricultural production – alternatives that are critical pathways to poverty reduction. The loss of land productivity is one of the key challenges that pressurize development actors to capacitate rural families with an alternative livelihood means.

Pastoralist and agro-pastoralist societies are particularly vulnerable to the loss of land productivity due to their dependence on pastures and crop production for their livelihood. Decreasing this dependence through the diversification of livelihood strategies could potentially reduce the vulnerabilities of such societies, with the added benefit of reducing agricultural activities on the land.

Greening Earth Project believes that diversification of income sources of households has positive impact on poverty eradication. Therefore, if households have diversified sources of income, it has a positive implication on food security status of households and poverty reduction through increasing their total monthly income earning.

The project innovated diverse sources of income to families in Mseko that would minimize pressure on the land. Families in Mseko are capacitated on and adopting on with high speed. Some of the capacitated alternatives are categorized into three terms, short-term goals, mid-term goals and long-term goals. Fruits tree farming, timber tree farming, leaf vegetables, increasing milk production, initiating small family business and joining saving and loan groups are among of the initiatives promoted to families in Mseko.

On the saving and loan groups, 14 women producer groups have been formed. They started with dairy goats farming. The goats were provided to them by the project. Two female goats per group and male goats purposely to improve the genetic breed in the village.

In the groups, they are trained to save and get loans to run businesses. One more group was added, therefore there are 15 active saving and loan groups as described in the table bellow. 26,416,050 million saved within six months of the first year of project operation which is equivalent to 10,738.23 Euros with an average saving of 1789.71 Euros per month.

11 different new businesses were initiated in the village. The businesses resulted from the loan they take in the groups. The businesses are selling of vegetables, clothes, salts, tomatoes, small shops and cafeteria.

Table 11: total amount saved in the first project implementation year in Mseko

Total saving of the saving groups for six months										
S/N	Name of the saving group	stock value	social fund value	saving June	Saving July	Saving August	Saving September	Saving October	Saving November	Total Saving
1	Jipe Moyo	2,000	500	424,000	615,400	615,400	806,350	638,300	532,350	3,631,800
2	Faraja	1,000	500	264,500	222,400	222,400	342,950	321,150	355,000	1,728,400
3	Mkombozi	400	500	216,200	379,100	379,100	416,550	369,950	461,050	2,221,950
4	Juhudi	400	500	202,000	217,750	217,750	277,700	227,750	277,800	1,420,750
5	Sauti	400	500	161,200	217,650	217,650	248,500	211,350	228,650	1,285,000
6	Umoja	500	200	304,000	248,300	248,300	326,050	273,450	519,700	1,919,800
7	Amani	400	500	207,700	294,850	294,850	326,400	316,300	376,250	1,816,350
8	Azimio	500	500	112,800	277,400	277,400	316,500	257,000	168,950	1,410,050
9	Muungano	400	500	219,200	156,800	248,800	276,900	260,150	369,750	1,531,600
10	Nguvumoja	500	500	314,000	340,900	381,950	407,000	432,350	577,100	2,453,300
11	Mshikamano	500	500	325,000	277,550	328,000	506,900	455,250	481,300	2,374,000
12	Tunaweza	400	500	234,500	234,500	262,150	364,600	283,650	223,400	1,700,800
13	Agape	400	500	171,800	158,850	156,800	232,200	170,400	274,700	1,164,750
14	Tumaini	400	500	-	37,500	172,500	265,700	223,400	402,900	1,102,000
15	Ukombozi	400	500	-	71,100	116,100	171,600	126,300	170,400	655,500
	Grand Total			3,156,900	3,750,050	4,139,150	5,285,900	4,566,750	5,517,300	26,416,050

Target #4: strengthening social cohesion

Social cohesion is an important determinant of the peaceful community. It creates strong bond among community members. It also fosters greater trust and joint work in the community. Social cohesion needs to be promoted since it fosters community development. This is part of the project achievement. Community members in the project area are working together on promoting their developments. Community participation in project initiatives to implement exceeded our targets.

✔ At least 200 family to process land right to solve related conflict might happen each year:

Land is the major source of conflicts in the society. The conflicts have contributed greatly to the extremely poverty some of the communities are facing especially those living in rural areas. Because families they don't have property right, they always fight on the land ownership or borders. This contributes to decelerating development speed.

The project decided to facilitate families to obtain their land rights. 254 families in Mseko have surveyed the land ready to process and obtain their land rights. Certificates of Customary Rights of Occupancy (CCRO) s the process that the project is capacitating families to obtain.

Picture 5; awareness creation on CCRO processes following to ensure land rights in Mseko village



✔ At least 90% of the families to participate in the project activities

On 1st December 2021, the project was officially launched after passing some steps on INGO registration and certification at different national, region, district, and ward levels. The village council was the first starting point. A meeting was conducted between the village council and the project team. It was to discuss on how to run the project, project operation and ownership. In the meeting, we agreed on the project to be owned by the community and the two parts (village council and project team) to supervise its operation. It was agreed on the date for the inauguration ceremony.

On 18th December 2021, the inauguration event was done. Different guests from the district and level were invited and attended the ceremony. More than 1300 people attended the inauguration event. The target was 1000 people to attend the inauguration event. People attended the event was

sign of good start of the project. Different dancing and singing groups performed at the event. The event attracted attention on the presence of the INGO and Project in the village.

🌱 Prize giving ceremonies

During the operational year we have two prize giving events. It's a big ceremony in the village where all community members are welcomed to attend the events. Get together meals and drinks are available on the vent. Where the guest of honor has lunch with community members. During the event dancing, singing, choir and poems are practiced to entertain the crowd.

132 winners of different contests like family improvements, tree planting and forest managements, animal husbandry improvements, singing and dancing to prays cultural practices were given prizes. A total of 24,050,000 Tsh were given to winners. Some of the money contributed to the saving they did in the village.

The events are designed purposely to unite the community regardless of their tribe differences, social conflict and livelihood differences. It aims at strengthening social cohesion and participation. Out of the two ceremonies required to be held in a year only one prize giving event was conducted and the second event will be conducted in February of the second project year.

Picture 6; Dancing competition during the prize giving ceremony (enjoying their cultural practices)



Picture 7: value of the certificate of honor to winners on creating enthusiasms of household's participation in project innovations introduced



Picture 8: grandmother receiving her money after winning the household improvement contest on the third position



The table PDF describes the total amount of money given to winners on the first competition circle



Winners.pdf

Village council participation in the project activities and their roles

The village council are the major partners of the project introduced innovations. Their participations are of vital considerations. At the start of the project there are agreements that on how to run the project with village council. The village have to provide the place where the nurseries have to be built, their community members come and fill the polyethene tubing with soil, they have to implement or establish by-laws on environmental restoration and conservations and lastly, they have to show their contributions during the ceremony event. They give cooking water, they come to cook, they provide firewood for cooking and have to provide security on the area where ceremony is conducted.

Target #5: To improve both primary and secondary education by imparting landscape regeneration and conservation knowhow.

Land degradation happening nowadays is due to the inherited background. A number of generations grew up seeing our ancestors' felling trees, either for opening farms, for crop cultivation, for charcoal burning, or for firewood. They don't know the value of planting trees and conserving the environment. Organizing students' environmental clubs and training them via their clubs is one of the strategies for imparting conservation technical know-how. It will help them to understand the value of conserving the environment and sustainable use of natural resources.

The project is working with all five schools in the Mgongo ward. Five environmental clubs were formed, one in each school. The clubs were trained on how to prepare seedlings, plant them and care competitively. Fruits trees were among the trees that were given to schools and planted. They are managing them well in a competitive way. Also, timber trees were given and planted in all five schools. Each student was given trees to plant and manage.

Mgongo secondary school has 300 students and each student was given five seedlings to plant and care for competitively. This drew attention to students attending school every day to see, irrigate and care for her plants. In Mgongo secondary school 1500 plants were timber planted. Msko primary school planted 1776 timber plants, Kizonzo primary school planted 547 timber plants and Kibululu primary school planted 459 timber plants. All these are part of training schooling children to adopt conservative strategy and tree planting technical know-how. Mgongo primary school they established their own nursery. They have raised 2890 seedlings in their nursery. The tree species is *Acrocupus* spp.

Table 12: Participants in each environmental school club

SCHOOL	Mseko primary school	Kizonzo primary school	Kibururu primary school	Mgongo primary school	Mgongo secondary school
No. of participants	50	45	60	50	80

Investment of the project

Financial report

For the first fiscal financial year the project spent 425,472,737 Tsh to run the project. Regardless of some challenges happened during the operation period but we managed to remain within the Tanzanian currency budget. The challenges meet is depreciation of the Euro and gaining of the Tanzanian Shilling. The exchange rate budgeted was 2800+ Tsh per 1 euro. But it depreciated till 2300+ Tsh per euro. Another challenge was on the petrol fuel price rise due. It was budgeted at 2300 Tsh per liter but it raised to 3500 Tsh per liter. The table below shows the expenses incurred during the first implementation of the project.

Table 13; expenses incurred by the project to run the activities during the first year of project implementation

Budget Performance for the year ended Nov 2022

	Budget from 1 december 2021 to Nov 2022	Cumulative Actual Expenditure from 1st december 2021 to 30 November 2022	Difference	Annually %	budget from Sept -Nov 2022	budget from Sept -Nov 2022	Actual Expenditure from Sept to Nov 2022	VARIANCE	PERCENT
	TZS	TZS	TZS		TZS	EURO	TZS	TZS	
Village 1									
01.01 WAGE TANZANIAN FIELD STAFF	105,517,500	84,015,622	21,501,878	20%	24,023,025	8,514	33,395,150.00	(9,372,125.00)	(0.39)
01.02 STUDING TOUR AND EDUCATION MATERIA	16,560,000	16,929,200	(369,200)	-2%		0	9,031,500.00	(9,031,500.00)	1.00
01.03 TRANSPORT + FIELD OFFICE	1,563,600	10,071,781	(8,508,181)	-544%	-	0	2,621,181.00	(2,621,181.00)	1.00
01.04 INCENTIVES	36,166,250	41,966,100	(5,799,850)	-16%		0	-	-	1.00
01.05 AGRICULTURAL & ANIMAL HUSBANDRY	80,812,000	116,939,550	(36,127,550)	-45%		0	25,033,000.00	(25,033,000.00)	-100%
Total village 1	240,619,350	269,922,253	-29,302,903	-12%	24,023,025	8,514	70,080,831.00	(46,057,806.00)	(1.92)
Central Office									
06.01 WAGES FOR CENTRAL OFFICE STAFF	65,654,040	60,913,710	4,740,330	7%	20,553,510	7,284	18,463,200.00	2,090,310.00	0.10
06.02 OFFICE RECURRING COST	15,897,000	13,800,300	2,096,700	13%	3,873,000	1,373	3,024,200.00	848,800.00	0.22
06.03 EQUIPMENT	40,600,000	39,269,600	1,330,400	3%	375,000	133	300,000.00	75,000.00	0.20
06.04 BASELINE STUDY & EVALUATION	17,102,333	2,197,400	14,904,933	87%	14,913,333	5,285		14,913,333.00	1.00
06.06 BOARD GREENING EARTH INGO	6,200,000	8,389,000	(2,189,000)	-35%	500,000	177	2,175,000.00	(1,675,000.00)	(3.35)
06.08 MARKETING AND COMMUNICATION	3,650,000	4,039,300	(389,300)	-11%		0	900,000.00	(900,000.00)	
06.09 CCRO	32,250,000	24,287,519		0%	32,250,000	11,429	23,904,519.00	8,345,481.00	0.26
06.10 FINANCE COST	2,500,000	2,528,655	(28,655)	-1%	625,000	222	861,704.57	(236,704.57)	(0.38)
Total village 1	183,853,373	155,425,484	20,465,408	11%	73,089,843	25,903	49,628,624	23,461,219	0.32
Total project cost	424,472,723	425,347,737	-8,837,495	-2%	97,112,868	34,417	119,709,455	-22,596,587	(0.23)

Family investment

Farmers invested their time and resources also to implement the project interventions introduced by the project. To quantify their investment the table bellow shows the investment per item. A total of 111,180,900 Tsh were invested by farmers in Mseko during the first fiscal financial year of the project.

Table 14; describing investment incurred by the farmers during the first year of project implementation

Group	Trees planting and managment	Smoke free stoves	plastering their houses	construction of latrines	construction of land fill	Kitchen garden farming	construction of cupboard	TOTAL IN Tsh	TOTAL in Euros	Numero de households	inversion/ household
Changarawe	2,743,500	1,530,000	2,505,000	1,515,000	230,000	350,000	1,080,000	9,953,500	€ 4,172	43	€ 97
Igembe sabo	3,264,400	1,680,000	2,715,000	1,325,000	270,000	250,000	1,230,000	10,734,400	€ 4,499	45	€ 100
Zahanati	2,917,000	1,080,000	1,620,000	1,740,000	210,000	300,000	285,000	8,152,000	€ 3,417	66	€ 52
Mshikamano	3,138,500	1,620,000	2,145,000	1,855,000	200,000	400,000	585,000	9,943,500	€ 4,167	69	€ 60
Mpambala	2,501,500	1,060,000	1,640,000	2,425,000	230,000	0	750,000	8,606,500	€ 3,607	72	€ 50
Mwabayanda	2,489,500	1,620,000	2,370,000	4,630,000	290,000	200,000	1,080,000	12,679,500	€ 5,314	64	€ 83
Chemcham	2,369,500	2,380,000	4,010,000	6,685,000	760,000	400,000	1,890,000	18,494,500	€ 7,751	86	€ 90
Kando ya mte	270,500	1,140,000	1,040,000	0	140,000	150,000	900,000	3,640,500	€ 1,526	87	€ 18
Mtakuja	1,942,500	660,000	880,000	240,000	260,000	550,000	1,125,000	5,657,500	€ 2,371	74	€ 32
Mnadani	1,001,000	420,000	580,000	745,000	430,000	500,000	1,170,000	4,846,000	€ 2,031	72	€ 28
Wimate	569,500	780,000	1,330,000	950,000	250,000	350,000	495,000	4,724,500	€ 1,980	63	€ 31
Simbasimba	876,000	820,000	840,000	205,000	220,000	200,000	855,000	4,016,000	€ 1,683	48	€ 35
Malulani	1,385,500	60,000	460,000	1,430,000	0	50,000	765,000	4,150,500	€ 1,740	48	€ 36
Masanga	2,427,000	540,000	1,185,000	565,000	200,000	350,000	315,000	5,582,000	€ 2,339	55	€ 43
TOTAL	27,895,900	15,390,000	23,320,000	24,310,000	3,690,000	4,050,000	12,525,000	111,180,900	46,597	892	€ 52