NGARA/KEFRI/TerraFund for AFRI100 Project Quarterly Report

JULY-SEPTEMBER 2024

1.0 Background Information

The African Forest Landscape Restoration Initiative (AFR100) is a country-led effort to bring 100 million hectares of these deforested and degraded landscapes across Africa into restoration by 2030. Through its network of restoration champions and technical and financial partners AFR100 aims to restore lands so people can thrive through accelerated restoration to enhance food security, increase climate change resilience and mitigation and also combat poverty in rural areas. It is implemented in 34 countries in Africa. TerraFund for AFR100 is financing organizations and enterprises to restore land in three Africa vital landscapes among them the Kenya's Greater Rift valley. NGARA and KEFRI-Baringo are implementing the project in Marigat and Tenges wards of Baringo County with the funding from TerraFund for AFR100.

2.0 Objectives of the Project

The project objectives are outlined below;

(a) To raise and plant 700,000 assorted indigenous and exotic tree species and 1,000,000 aloe plants within a span of two years with the aim of enhancing food security, enhancing climate change resilience and reducing poverty. Farmer Managed Natural Regeneration (FMNR) practice has also been adopted to contribute to restoration goals;
(b) To develop Capacity building programs and information and technology transfer among members in the selected NTFPs to enhance collaboration, knowledge-sharing, and best practices through exchange visits;
(c) To undertake monitoring and evaluation during implementation of the project including tree and site maintenance that ensures survival of over 70% by year six.

3.0 Project Activities within the quarter

During the quarter the KEFRI team conducted field visits in the two project sites of Tenges and Marigat wards. This is part of the monitoring and evaluation to check on the progress of tree seedlings distributed for planting, take polygons and centre-points of farmers planting sites and also get farmers feedback on the project activities. As at the time of writing this report, at least 650 farmers had been recruited to be the target project beneficiaries. Most importantly, by the end of the reporting period, 361 farmers had received TerraFund seedlings. Additionally, 350 farmers planted approximately 169,115 assorted tree seedlings and 30,500 aloe seedlings. The planted trees covered around 100 hectares in Tenges Ward and 69 hectares in Marigat Ward. In total, 110 farmers were visited during this period to monitor the survival of the planted tree seedlings. Among the farmers visited, 59 farmers were from Marigat ward while 51 farmers were in Tenges ward. A total of 68 farmers comprising farmers from both wards planted well and took good care of the trees while 42 of them did not take good care of the seedlings. Those who neglected the seedlings failed to remove regenerating weeds and shrubs which choked the planted seedlings. Some also didn't plant the tree seedlings appropriately. It is also important to

note that 20 FMNR farmers were also recruited, comprising 10 farmers from each Ward. Several other farmers from project areas requested for training on the FMNR practice and promised to consider being enrolled in the coming months. Generally, the project team has distributed seedlings to 139 farmers in Marigat ward and 300 farmers in Tenges ward, totaling to overall 361 farmers. There were not enough seedlings to give all the registered farmers during the planting season. Efforts are being made to ensure that sufficient numbers of seedlings are raised between now and early next year (2025) to give all the remaining 289 farmers and visits made to all the 361 farmers to asses performance of the planted seedlings and also recruit more farmers into the FMNR practice in the next three months. Table 1 and Table 2 below show the performance of the planted trees of the sampled farmers in Tenges and Marigat wards.

Table 1: Visited farmers and survival rate of tree seedlings planted in Tenges Ward

S/NO	NAME	LOCATION	TREES PLANTED	SURVIVING TREES	SURVIVAL PERCENTAGE
1	Stephen Too	Kibei	20	20	100
2	Joan Yatich	Kibei	19	10	53
3	Esline Too	Kibei	19	9	47
4	Azuba Yatich	Kibei	9	6	67
5	Rajab Kimutai	Kibei	19	11	58
6	Benard Yatich	Kibei	6	4	67
7	Daniel Chebii	Kibei	22	20	91
8	Eleen Kurui	Kibei	40	20	50
9	Solomon Chebii	Kibei	30	25	83
10	Christine Kokwee	Kibei	30	25	83
11	Paul Konga	Kibei	60	42	70
12	Justine Kiptoo	Kibei	24	20	83
13	Titus Kipkemoi	Kibei	30	25	83
14	Ruth Jerotich	Kibei	28	15	54
15	Lydia Koech	Kibei	27	18	67
16	Zechariah Kiprop	Kibei	32	28	88
17	Jonathan Kipngok	Kibei	42	40	95
18	Agnes Ayabei	Kibei	40	36	90

19	Richard Kipsugei	Sorok	100	91	91
20	Simon Mondui	Sorok	100	93	93
21	Richard Mondui	Sorok	100	95	95
22	Musa Chesire	Sorok	100	92	92
23	Nancy Cheruto	Sorok	100	70	70
24	Michael Kipsuga	Sorok	100	78	78
25	Samuel Ayabei	Sorok	100	92	92
26	William Rono	Cheplambus	20	7	35
27	Nancy Korir	Cheplambus	10	6	60
28	Flavin Chemitei	Cheplambus	5	3	60
29	Eric Kiplagat	Cheplambus	115	100	87
30	Jonah Rotich	Cheplambus	10	6	60
31	Koech Sang	Cheplambus	100	43	43
32	Charles Ketrot	Cheplambus	50	39	78
33	Samuel Ngetich	Cheplambus	135	108	80
34	Safari Komen	Cheplambus	30	3	10
35	Silas Kogei	Cheplambus	20	2	10
36	Kipkosgei Kenneth	Cheplambus	25	2	8
37	Kiplimo Rop	Cheplambus	110	100	91
38	Kevin Bore	Ochii	80	40	50
39	Walter Kibet	Ochii	100	100	100
40	Hesborn Korir	Ochii	50	20	40
41	Jonathan Sang	Ochii	40	30	75
42	Alex Kemboi	Ochii	40	20	50
43	Rose Tubei	Ochii	35	25	71
44	Abraham Koech	Ochii	50	50	100
45	Andrew Tuitoek	Ochii	50	32	64
46	Zechariah Kiptum	Ochii	100	62	62
47	Samwel Sigat	Koibarak	20	10	50
48	Joseph Chirchir	Koibarak	30	21	70

49	Isaac Chirchir	Koibarak	30	24	80
50	Elijah Cheruiyot	Koibarak	60	20	33
51	Alfred Kiptoo	Koibarak	10	10	100
	TOTAL		**2,522**	**1,868**	**74**

Table 2: Visited farmers and survival rate of tree seedlings planted in Marigat Ward

S/NO	NAME	LOCATION	TREES PLANTED	SURVIVING TREES	SURVIVAL PERCENTAGE
1	Christine Kibilioch	Yatoi	90	86	96
2	Hosea Kandagor	Yatoi	94	82	87
3	Valentine Chelimo	Yatoi	8	8	100
4	Joseph Chelimo	Yatoi	235	159	68
5	Jane Korir	Yatoi	200	162	81
6	Haffsa Kabutei	Yatoi	50	40	80
7	Simon Korir	Yatoi	200	126	63
8	Egla Tulia	Yatoi	30	26	87
9	Emmy Toroitich	Yatoi	50	43	86
10	Alvin Kochil	Yatoi	20	10	50
11	Brian Ronoh	Yatoi	11	8	73
12	Dorothy Chelimo	Yatoi	9	9	100
13	Emmy Cheruiyot	Yatoi	25	18	72
14	Daniel Cheboiwo	Tebei	15	10	67
15	Evans mutai	Tebei	29	26	90
16	Nicholas Kangogo	Tebei	100	70	70
17	Dennis Kangogo	Tebei	20	20	100
18	Benard Cherop	Tebei	35	25	71
19	Wilson Lagat	Tebei	20	2	10
20	Richard Katama	Tebei	50	20	40
21	Bruno Kangogo	Tebei	5	5	100
22	Musa Kangor	Tebei	25	8	32

23	Ezekiel Ngetich	Tebei	18	9	50
24	Pius Kombich	Tebei	20	7	35
25	Priscilla Kangogo	Tebei	15	3	20
26	Thomas chepyegon	Talai	100	92	92
27	Caroline Yatich	Talai	30	27	90
28	Rael kimuke	Talai	150	94	63
29	Edwin kemboi	Talai	20	16	80
30	Musa chelimo	Talai	50	23	46
31	Sylvester Kulei	Talai	150	80	53
32	Amos Rutto	Talai	50	45	90
33	Wesley Kandie	Talai	50	37	74
34	Micah Chepkuto	Talai	150	58	39
35	Amos Kipkubut	Talai	150	25	17
36	Felix Kipkoech	Talai	50	43	86
37	Abel Komen	Talai	150	122	81
38	Joshua Toroitich	Talai	150	99	66
39	Makrina Kipsawe	Sirwet	150	100	67
40	Anne Chesire	Kaptich	50	44	88
41	Janet Cheruiyot	Kaptich	150	108	72
42	Mary Serem	Kaptich	150	132	88
43	Shadrack Koech	Kaptich	150	77	51
44	Samwel Kipsang	Kaptich	150	100	67
45	Alex Wendot	Kaptich	150	137	91
46	Tingos Luka	Kaptich	150	119	79
47	Isaac Kurere	Sirwet	150	101	67
48	Dorcas Chebaskwony	Sirwet	150	123	82
49	James Rono	Sirwet	150	94	63
50	Richard Chebii	Sirwet	150	100	67
51	Wilson Chirchir	Sirwet	150	110	73
52	William Chepsoi	Sirwet	150	134	89

53	Jackson Chemjor	Sirwet	150	110	73
54	Samson Kaibos	Sirwet	150	106	71
55	Micah Chebet	Sirwet	150	128	85
56	Wesley Chebii	Sirwet	150	110	73
59	Isaac Kiplagat	Sirwet	150	45	30
58	Jonathan Rotich	Sirwet	150	53	35
59	Samwel Chebet	Sirwet	150	100	67
	TOTAL		**5,674**	**3,874**	**68**

4.0 Preparations for tree planting during the short rains (October – November 2024)

Toward the end of the current reporting period (July–September) some farmers and institutions received assorted 6,390 tree and aloe seedlings from the project nursery to take advantage of the short rains. Currently, the project team is in the process of identifying new farmers and institutions interested in participating in the project. This effort includes recruiting additional institutions in anticipation of the upcoming short rains expected in October and November 2024, to maximize tree planting efforts during that period.

During the period, the project team sourced for high quality seeds available at the Kenya Forest Seed Centre (KFSC), independent seed vendors and from the local community. We also produced seedlings from the locally available wildings within the area for distribution during the short rains. In NGARA-KEFRI project nursery, about 27,452 assorted tree seedlings were raised during the period. Out of these, 8,820 (6,092 Neem, 2,728 *Terminalia mentalis*) were raised from wildings. 6,516 *Moringa oleifera* seedlings were raised from seeds and 12,116 *Grevillea robusta* raised from seeds too.

We also did propagation of an initial batch of 150,000 aloe in readiness for the planting in April-May 2025 long rain season but due to heavy rains experienced during the reporting period, our nursery was heavily flooded and destroyed all our young plantlets before pricking them out. The aloes are very sensitive to waterlogging conditions which inhibit their growth and encourages fungal attack. The team is fast learning on how best to care for

aloe seedlings and now in the process of propagating the second target batch of about 400,000.

Meanwhile, routine nursery management activities such as watering, sorting, root pruning and hardening off among others were also performed to maintain the quality of seedlings in our nursery. The total stock of seedlings to be planted out during the short rain season in the next quarter is shown in table 3 below;

Table 3: Seedlings Stock in the nursery as at 30th September 2024

S/NO	SPECIES	NO. OF SEEDLINGS
1	*Senegalia Senegal*	14,425
2	*Tamarindus indica*	1,020
3	*Azadirachta indica*	612
4	*Senna siamea*	7,941
5	*Ziziphus mauritiana*	149
6	*Melia azedarach*	2,999
7	*Terminalia mentalis*	3,227
8	*Sclerocarya birrea*	27
9	*Moringa oleifera*	6,516
10	*Prunus Africana*	132
11	*Grevillea robusta*	12,116
12	*Cupressus lusitanica*	132
13	*Eucalyptus saligna*	18
	TOTAL	**49,314**

5.0 Challenges, Findings/Lessons Learnt and Recommendations

5.1 Challenges

- The uptake of *Senegalia senegal* remains low in the project implementation area, whereas there is a significantly higher demand for Cypress and *Grevillea robusta* seedlings among farmers.

- Despite the onset of rains in the region, the number of farmers visiting the nursery to collect seedlings has been lower than expected.
- Many farmers continue to demonstrate poor tree planting techniques, despite receiving ongoing technical guidance and support from the project team.
- Access to certain areas remains challenging, particularly during the rainy season, due to poor road infrastructure. For instance, the Kisonei area is notably difficult to reach during this period.

5.2 Lessons Learnt

i. There is high demand for *Cupressus lusitanica, Eucalyptus saligna* and *Grevillea robusta* by farmers in Tenges ward while high demand for *Azadirachta indica, Terminalia brownii, Tamarindus indica* and *Grevillea robusta* in Marigat ward.

ii. Some farmers did not plant the seedlings in time hence poor survival of the seedlings on farmlands.

iii. There is still slow uptake of *Senegalia senegal* amongst the farmers despite its economic benefit on the production of gum Arabic and role in landscape restoration. The project team is now undertaking awareness creation on the benefits of the species and gradually introducing the benefits of trading of gum Arabic.

5.3 Recommendations

i. 1. The project team is now focused at raising seedlings of tree species that are on high demand by the farmers.

ii. 2. More visits by the project team has been planned to the restoration sites to ascertain the progress of the seedlings planted and also collect feedback from farmers so that corrective action can be undertaken.

iii. 3. The project team has planned for continuous creation of awareness on the importance and benefits of various tree species prioritized by the project. This can be achieved by organizing trainings for the contact persons who are the local administrators, enumerators and the lead farmers. Specifically, creation of awareness on the economic value of *Senegalia Senegal* and *Tamarindus indica.*

iv. 4. The project team realized that several farmers would like to be trained on the benefits of the Farmer Managed Natural Regeneration (FMNR). Consultations on development of a farmers training programme during the next reporting period are being made.

v. 5. The project team realized that many farmers are not willing to plant Aloes on their farms. This is largely attributed to the failure of past efforts to promote Aloe processing activities in Baringo County under a Public Private Partnership arrangement. These challenges have since been overcome as the County Government of Baringo has identified an investor on Aloe processing. The project team has therefore planned to undertake awareness creation to all the participating farmers during the next reporting period on the need to invest in Aloe cultivation and management. The 40,000 Aloes raised during the just concluded planting period were all taken to farmers in the neighbouring Mogotio Ward where communities are willing to plant them. Mogotio ward is adjacent to both Marigat and Tenges wards and we have agreed with these farmers to allow us to monitor, assess and report the performance of the seedlings regularly. They have also requested to be included in future project trainings and capacity building activities on processing and value addition of the Aloe products.

vi. 6. The project team established that engagement of more schools, hospitals and other learning institutions within the project implementation sites is a popular initiative. More intensive engagement with these institutions to enlist their active participation has been planned during the next reporting period.

Figure 1: Ongoing seed sowing in Nursery

Figure 2: Some of the cypress trees on farmlands in Tenges site

Figure 3: *Terminalia Mentalis* Seedlings in the nursery raised from wildings