

KUJENGA MAISHA EAST AFRICA-KUMEA



FINAL PROGRESS REPORT FOR EASTERN WATER LIVELIHOODS PROJECT

“Promoting sustainable water & forest livelihoods through community participation”

APPENDIX 1

Interim Narrative Report

For the attention of

Leah, Project Coordinator-NAK-KARIRITATIVE

Nairobi, Kenya-3rd February,2023

Partner	Kujenga Maisha East Africa-KUMEA	Project Number:	2021-004
Project Name	Eastern Water Livelihoods	Project Duration	1 Year-January 2022 to January ,2023
Project Leader	Peter M.Okaka	Reporting period:	February ,2023

1. General Information

1.1. Project Information

The project was initiated in 2021 but funded in January, 2022. The project covers Kibwezi sub county and is implemented in Kibwezi East and West Wards. The objective of the project is to address the following key issues;

- a) Provision of safe water to target schools and villages
- b) Promote agriculture livelihoods through drip irrigation i.e. Vegetable production
- c) Promote agroforestry and environment protection
- d) Promote sustainable agriculture through organic and conservation farming practices
- e) Capacity building to enhance project sustainability
- f) Promote collaboration and networking with other stakeholders i.e. KEFR/KFS, Sub county agriculture and Education departments

The project constructed 10no. hand dug/shallow wells installed with solar pumping unit and also drip irrigation systems. It also involved construction of 5no. Ferro-cement water tanks of 30,000litres capacity with installation of drip irrigation. The project also promoted ecological sanitation with linkages to agroforestry production through the Arboloo /SAN PLAT latrines.

List the indicators of the **Specific Objective**, and provide level of achievement.

Specific Objectives	Level of achievements
1. Improve access to safe water for utilization by community members and school	<ol style="list-style-type: none">a) Carried out 2no. Participatory Rural Appraisal exercise to identify project sitesb) Construction of 10no. handdugwells fitted with solar pumping system in 10 target villages through community participationc) Construction of 5no. Ferro-cement water tanks of 30,000litres capacity in 5 target schools through the involvement of schools

<p>2. Improve community natural resource management and sustainable agriculture production</p>	<ul style="list-style-type: none"> a) Liaise with KEFR/Kenya Forest Service to initiate growing 1500 trees (300no.per school for the 5no. target schools) for woodlots/agroforestry promotion b) Support and promote establishment of tree nurseries for the 10no. community water points to promote forest livelihoods c) Installation of drip irrigation kits to 10no. community water points and 5no. Ferro-cement water tanks for vegetable production for community livelihoods improvement & school feeding programs d) Promote establishment of 92no. Kitchen gardens for household's sustainable food production e) Provide the 10no. women groups involved in managing water points with 6000 cassava seedlings (600no. per water point) for enhancing community food security f) Undertake demonstrations of Arboloo/SANPLAT latrines in 4no. villages for Sanitation improvement and agroforestry adaptation
<p>3. Improve capacity building of various community and farmers groups to sustain various project activities</p>	<ul style="list-style-type: none"> a) Train 10no. community groups on vegetable production to scale up kitchen garden adaptation for sustainable food production b) Train 10no. community groups on Conservation agriculture and organic farming c) Training of 15no. Water points committees (10no. wells & 5no. Ferro-cement tanks) on water resource management for sustainability of the water points d) Develop operation and maintenance manuals for effective use and management of all the water points constructed e) Quarterly review meeting to facilitate participatory project monitoring and review project implementation process

2. Project Implementation

2.1. Results and activities

Intermediate Objectives	Activities	Target	Achieved	Remarks
1. Improve access to safe water for utilization by community members and school	a) Leaders Orientation Forum	1	1	Launching of the project and involvement of stakeholders in planning for project implementation process
	b) Participatory Rural Appraisal Exercise	2	2	Involvement community leaders through participatory process to identify water points sites and schools for project implementation
	c) Construction of hand dug wells fitted with solar pumping unit	10	10	Construction of the water points through community participation. Community mobilization of materials and unskilled labour. The project provided skilled labour and hardware materials. All the 10no. community provide water for domestic use and also food production via drip irrigation.
	d) Construction of Ferro-cement Water tank of 30,000 litres	5	5	Through community participation schools mobilized local materials and unskilled labour for construction of Ferro-cement water tanks. The project provided skilled labour and hardware materials. All the 5no. Ferro-cement water tanks provide water drinking at school and also food production via drip irrigation.
2. Improve community natural resource management and sustainable agriculture production	a) Orientation of communities for Ecological sanitation- Arboloo/SANPLAT latrines for agroforestry promotion	4 Villages	4Villages	Through the orientation of Ecological sanitation 114latrines have been constructed at household level in the 4no. villages. The transfer of sites for new latrines will enhance planting of trees in the old pits hence each time 114 trees will be planted to enhance agroforestry.
	b) Establish vegetable production through kitchen gardens	40	92	The community increased kitchen gardens due to increased promotion and assistance of the sub county agriculture department. The impacts of the vegetable production via drip irrigation encouraged community to adapt kitchen gardens for sustainable vegetable production.

	c) Establish cassava production & organic farming for sustainable farming and food security	4 Villages	10 Villages	All the 10 no. community groups requested to be involved in cassava production hence 6,000 seedlings provided to scale up cassava production and improve community food security & sustainable farming
	d) Establish vegetable production through 4K clubs to enhance sustainable food production	5 Schools	5 Schools	All the target schools have demonstration farms utilizing drip irrigation via the Ferro-cement water tanks thus enhancing food production through the involvement of 4k clubs and also as a learning tools for the Competency Based Education Curriculum which promotes practical agriculture lessons for enhanced livelihoods
3. Improve capacity building of various farmers groups to sustain project activities	a) Conservation Agriculture training	1	1	Conservation Agriculture was carried out to enhance good farming practices and also utilize organic waste to improve production
	b) Vegetable production training	1	1	Training carried out on site at various community water point sites to scale up vegetable production and households kitchen gardens
	c) Water Resource Management training	1	1	All the water points (10 community water points and 5 Ferro-cement water tanks) committees trained on management of the water points inclusive operation and maintenance schedules.
	d) Quarterly Review Meetings & forums	8	8	Quarterly meetings carried out at sub county level to enhance participatory project monitoring to improve project implementation process

2.2. If relevant submit a revised log frame, highlight the changes

No revised plans

2.3. Provide an updated action plan

No new plan project has come to end

2.4. Target group

Profiles of project beneficiaries and state of the water points

a) Beneficiaries of Community water points constructed in the project area

PROJECT AREA	SITES/VILLAGES	NO.OF HOUSEHOLDS	NO. OF PEOPLE SERVED	STATUS OF THE WATERPOINT	SIZE OF HORTICULTURE LAND	TYPES OF VEGETABLE PRODUCED
KIBWEZI EAST	1. Miamba Mitamboni	60	600	Completed and installed with solar pumping unit &drip irrigation	700M ²	Kales Cabbage Nightshade
	2. Kikwasuni	50	500	Completed and installed with solar pumping unit &drip irrigation	567M ²	Kales Spinach Spiderplant Amaranthus Tomatoes Egg plants Pumpkin
	3. Kyeni Cha Ngini	60	600	Completed and installed with solar pumping unit &drip irrigation	1485M ²	Kales Spinach Spiderplant Nightshade Tomatoes Egg plants Maize
	4. Wasye Umwe	40	400	Completed and installed with solar pumping unit &drip irrigation	968M ²	Kales Cabbage Tomatoes Spinach
	5. Kasunduni	50	500	Completed and installed with solar pumping unit &drip irrigation	760M ²	Kales Cabbage Tomatoes Spinach Amaranthus
	Totals	260	2600		4,480M²	
KIBWEZI WEST	1. Neema ya Mungu	60	600	Completed and installed with solar pumping unit &drip irrigation	650M ²	Kales Cabbage Tomatoes Spinach Amaranthus Nightshade
	2. Ngwatanio Ya Misuuni	50	500	Completed and installed with solar pumping unit &drip irrigation	832M ²	Kales Spinach Nightshade
	3. Wise women	60	600	Completed and installed with solar pumping unit &drip irrigation	1632 M ²	Kales Spiderplant Spinach Nightshade
	4. Wikwatyo Mbaitu	50	500	Completed and installed with solar pumping unit &drip irrigation	1152 M ²	Kales Cabbage Tomatoes Spinach Nightshade Okra Onions
	5. Syokoa	50	500	Completed and installed with solar pumping unit &drip irrigation	825M ²	Kales Tomatoes Spinach Okra
	Totals	270	2700		5,091M²	
GROSS TOTALS	10No.	530	5,300		9,571M²	

b) Beneficiaries for Schools and state of project implementation in Kibwezi East Ward/location

NAME OF SCHOOL	NO. OF FERRO-CEMENT TANKS (30,000 Litres each) CONSTRUCTED	SIZE OF LAND UNDER HORTICULTURE VIA DRIP IRRIGATION	TYPE OF VEGETABLE PRODUCED	POPULATION			
				BOYS	GIRLS	TEACHERS	TOTALS
1. Yikivumbu Primary school	1No.	896 M ²	Kales & Cabbages	212	173	13	398
2. Ndauni Primary school	1No.	1092 M ²	Kales & Cabbages	168	160	13	341
3. Kyumani Primary School	1No.	837 M ²	Kales & Cabbages	215	172	9	396
4. Miamba Primary school	1No.	972 M ²	Kales & Cabbages	78	72	11	161
Totals	4No.	3,797M²		673	577	46	1,296

c) Beneficiaries for Schools and state of Implementation in Kibwezi West Ward/location

NAME OF SCHOOL	NO. OF FERRO-CEMENT TANKS (20,000 Litres) CONSTRUCTED	SIZE OF LAND UNDER HORTICULTURE VIA DRIP IRRIGATION	TYPE OF VEGETABLE PRODUCED	POPULATION			
				BOYS	GIRLS	TEACHERS	TOTALS
1. Katulani Primary school	1No.	780M ²	Kales & Cabbages	130	135	15	281
Totals	1No.	780 M²		130	135	15	281

The communities have accepted the project through community participation during construction and also actively participated in training and orientation forums. The increased number of kitchen gardens at households' level confirms the need to address sustainable agriculture and improved security. Also the increased demand for cassava production that was planned for initially 4no. villages but extended to all other water points.

The installation of drip irrigation for community water points and schools has increased food production and also created demand to increase other food crops. The water points currently are investing and adapting increased agroforestry through establishment of tree nurseries which will create forestry livelihoods. Through networking with KEFRI and Kenya Forest services the schools have now established woodlots through planting of 300no. trees in each of the target schools hence improve environment conservation through 4K clubs. The school drip irrigation has created a demonstration farm which is a vital tool for competency based curriculum that is being promoted by the government to enhance rural livelihoods.

2.5. Income generating projects (if applicable)

Group Name	Group Size	Location	Size of Horticultural Site	Veggies planted	Number of beds	Harvest Kg	Money earned veggies
KIBWEZI EAST							Ksh.20/kg
Miamba Mitamboni	26	Uvilio village	700m ²	<ul style="list-style-type: none"> • Sukuma wiki • Cabbage • Nightshade 	21	190	3,800
Kikwasuni Group	14	Yikivumbu village	567m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Saget/spider plant • Amaranthus • Tomato • Egg plants • Pumpkin 	22	215	4,300
Kyeni cha Ngiini	13	Ngiini village	1485m ²	<ul style="list-style-type: none"> • Sukuma wiki • Tomatoes • Nightshade • Maize • Egg plants 	14	170	3,400
Wasya Umwe	10	Ngiini village	968m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Tomatoes • Cabbage 	14	150	3,000
Kasunduni Group	12	Kalia village	760m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Amaranthus • Pumpkin 	22	350	7,000
Subtotal							21,500
KIBWEZI WEST							
Neema Ya Mungu	22	Katulani village	650m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Cabbage • Nightshade(Ma nagu) • Saget/spider plant 	17	222kg	4,440
Ngwatanio Ya Misuuni	16	Misuuni village	832m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Nightshade(Ma nagu) 	22	230	4,500
Wise Women Group	18	Nyekindune village	1632m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Saget/spider plant • Cabbage 	14	180	3,600
Wikwatyo Mbaitu	29	Matua village	1152m ²	<ul style="list-style-type: none"> • Sukuma wiki • Spinach • Nightshade (Managu) • Okra • Onions • Cabbage 	22	200	4,200
Syokoya Group	17	Koya village	825m ²	<ul style="list-style-type: none"> • Sukuma wiki • Okra • Spinach • Tomatoes 	26	300	6,000
Subtotals							22,740
Totals							44,240

2.6. Stakeholders and partners

The project team worked well with key stakeholders namely the community, schools, sub county departments of Agriculture and Education. Kenya Forest Research Institute (KEFRI) and Kenya Forest Services teams for Kibwezi Sub county played key critical roles towards enhancing agroforestry.

The target community and schools contributed towards construction of the water points facilities i.e. Ferro-cement water tanks and shallow wells. They both contributed relevant local materials and unskilled labour towards the construction of the water points. While the project contributed hardware materials and skilled labour.

The department of agriculture played a big role in capacity building during the vegetable production, conservation agriculture and organic farming activities. In promotion of the kitchen gardens the sub county agriculture office provided materials and seedling to enhance high adaptation of kitchen gardens at household level.

KEFRI and Kenya Forest Services supported the project towards establishing woodlots in the target schools by providing seedlings and ensuring the school participate actively in agroforestry. The same has been done at water points in the communities to ensure they adapt forestry livelihoods by establishing tree nurseries at respective water points in the project area.

All the stakeholders and partners participated actively in quarterly review meetings to facilitate participatory monitoring of project activities. Also during capacity building sessions they were involved in facilitation process.

3. Challenges and Problems

The major challenge encountered was the difficult formation during construction hence forcing the artisans to re-site the water points. The re-siting process delayed completion of the water points. Also the difficult boulders forced the artisans use the explosives to detonate the water points to break down the rocks.

During the rains works stalled due to collapsing of the wells during deepening hence delaying construction of the water points. After well completion some water points had high salinity content hence affecting some members of the community who are not used to high salinity levels in water. The water can be used for cooking, washing and for drinking by animals but limited for human use for drinking. The water points are all suitable for drip irrigation.

4. Pictures-



1.0 Group discussions during quarterly review meeting for participatory Monitoring process for project implementation review in Kibwezi East Ward



2.0 Quarterly review meeting for Participatory Monitoring process for Project Implementation review for Kibwezi West Ward

3.0 Community participation in Ecological Sanitation & Agroforestry-SANPLAT Slabs Production in Miamba Mitamboni



a) Women community members mobilize materials



b) Women mixing sand, cement & ballast



c) Preparing for concrete mixing for Slab manufacture



d) Women manufacturing SANPLAT Slabs



e) Manufactured Slabs ready



f) SANPLAT Slabs being cured by group members



4.0 Culverts rings production at Pamwamu site –Culverts used for lining of hand /Shallow dug wells



5.0 Loading culverts to Water point sites



6.0 Transporting materials to Water point sites

7.0 SOME OF THE COMPLETED WATER POINTS



a) Solar pump installation at Wise Women water point



b) Solar pump installation at Wikyato Water point



c) Completed Kyumani Pri. School Ferro-cement tank



d) Completed Syokoa Water point site with Solar pumping unit

e.) Completed Yikivumbu Pri. School Ferro-cement tank





f) Katulani primary school Ferro-cement tank completed and in use



g) Ndauni primary school Ferro-cement water completed and in use



h).Ngwatania ya Misuuni Water point completed with installed solar pumping unit



i). Wise women water point completed with solar pumping unit



j). Wikwatu Mbaitu water point completed with solar pumping unit



k). Installation of drip irrigation system and kit at Wikwatu mbaitu water point site



l) Kikwasuni water point with drip irrigation system and tree-Nuseries production site



m) Kyeni Chan Ngini water point with solar pumping system and drip irrigation farm



n) Neema ya Mungu water point in Katulani village –Group member checking on their vegetable production farm



o) Ferro-cement Water & Drip irrigation system providing water for the school agriculture demonstration farm-Katulani Primary School



p) Women collecting water from Wise women-Nyekindune village water point site as they check on their vegetable production farm



q) Miamba primary school drip irrigation farm being developed

8.0 DRIP IRRIGATION & VEGETABLE PRODUCTION



a) TRANSPLANTING VEGETABLE SEEDLINGS AT NEEMA YA MUNGU WATER POINT SITE



B) Wikwatyo women group Water point drip irrigation system installation



C) Transplanting of vegetables at Neema ya Mungu women group water point site



d) Seedbed development at Neema ya Mungu women group water point site



e) Vegetable production farm at Ngwatania Misuuni Group water point in Misuuni village – Kibwezi West ward/location

9.0 PROMOTION KITCHEN GARDENS FOR HOUSEHOLD VEGETABLE PRODUCTION



a) Makueni Kitchen Garden women group demonstrating their activities in Kibwezi west Ward



b) Makueni Kitchen garden women group carrying vegetable production activities in Kibwezi west ward



c) Kitchen Garden vegetable seedlings preparation at Kutalani village –Neema ya mungu women group

10.0 WATER RESOURCE MANAGEMENT TRAINING



a) Group discussions on operation & maintenance during the training



b) Group discussion sessions on Leadership styles

11.0 CONSERVATION AGRICULTURE TRAINING & DEMONSTRATIONS



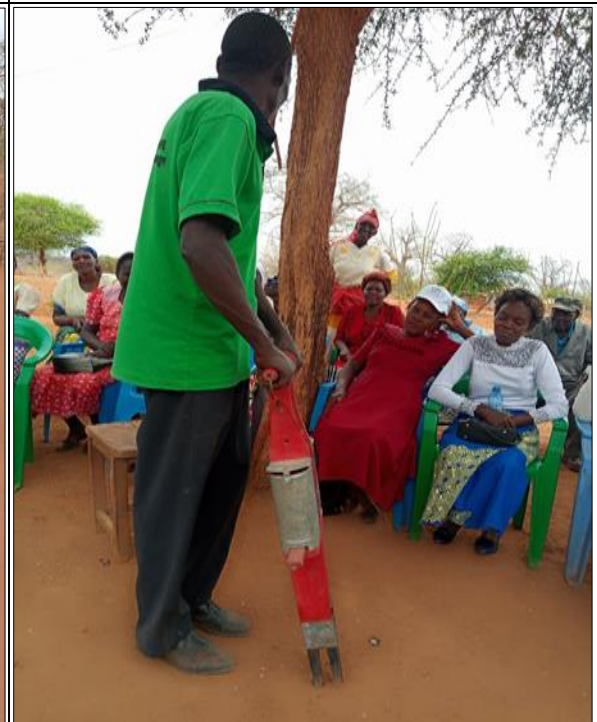
a) Farmers group orientation in Kibwezi East Ward



b) Farmers group orientation in Kibwezi West Ward



c) Demonstration of a red hand-operated planter for precision seed & fertilizer placement



d) Facilitator demonstrating the planter tool application for seed & fertilizer placement



d) Animal Drawn planter being demonstrated



f).Presentation of shallow weeder



g).Shallow Weeder demonstration &application

Supporting documents:

APPENDIX 2A

APPENDIX 2B

Plan for the next period (activities and budget)

NIL

Date: 3rd February, 2022, Signature

