

Participatory Rural Appraisal Exercise

Report for Vihiga Sub-County

February, 2024

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1.0 Executive summary

Participatory Rural Appraisal exercise was conducted with effect from 6th to 12th Feb.2024 in Vihiga sub-county, Vihiga County. The exercise was undertaken to gain a better understanding of household water resource availability and use, technological options for water points, hygiene and sanitation practices. The project also sought to understand agricultural practices and technologies being used in the area. Of important to note, was to support communities in participatory planning process. During the exercise, nine steps of PRA were used to collect data. These included; Community mapping, transect walks and profile, season calendar, Gender task analysis, wealth ranking, matrix scoring and ranking, institutional analysis, Access and control of resources at household and resource management plan. The PRA exercise revealed;

- That water for drinking and domestic use is available but inadequate. The technological options of water systems being used in the area include, piped scheme, springs, boreholes and roof catchments. The main water supply of piped water is from Vihiga spring which serves the area around the central business district. Wamadwagi spring is not functional, but is designed to serve the out skirts of the town. Other sources are springs and roofcatchment in schools. Most of the springs being used are unprotected. The program will carry out detailed data collection to ascertain feasible water points to support the community with protection to improve the quality and use.
- Observation from the transect walk revealed that some community members have dairy goats as part of their livestock. This local knowledge on water use will be scaled up by the program to include vegetable and tree planting through the drip irrigation.
- There are enough natural resources available for use during the implementation of the program to provide safe drinking water, and sanitation. These include sand, bricks, stones, which can be turned into ballast and hard-core for use.
- The existence of conventional pit latrines is an opportunity for the program to initiate SanPlat to improve on safe excreta disposal and best practices in hygiene. This will be followed by key hygiene messages that will support the use and maintenance.
- Seasonal calendar exercise revealed that during long rain season, diseases such as malaria and diarrhoea are high. In order to foster a health community, the program will need to undertake a preference survey to determine the scope of diseases and design an appropriate intervention.
- Wealth ranking exercise rated most of the households as poor. This perception is likely going to promote high dependence syndrome among the community. The capacity building sessions going to be under taken by the program should stress the water as an economic resource.
- The PRA exercise has provided a foundation for KUMEA to facilitate the application of participatory planning of activities. The analysed results of this PRA exercise were fed to the larger community through a public baraza. It is therefore anticipated that the exercises will go a long way in involving the community in monitoring and evaluation of their activities.
- Institutions analysis revealed that ministry of Agriculture through National Agriculture and Rural Inclusive Growth project has structures on the ground that are facilitating livelihoods improvement in the county. KUMEA might use this as a stepping stone to enhance livelihoods in the Sub county.

During the feedback one hundred and twenty five people (74 females and 51 males) participated and endorsed the findings as the true picture in Vihiga sub county.

2.0 Introduction:

Participatory rural appraisal was done at Vihiga in CDF hall from 6th to 12th Feb.2024. Participants who constituted the PRA team were drawn from Central Maragoli, Mungoma, South Maragoli, and Lugaga wards. There were four members from each ward. Five members from the line ministries like Livestock, Agriculture, Fisheries, water participated in the exercise, making a total twenty one participants. The four wards form the larger Vihiga sub-county, in Vihiga County.

During introduction, participants had a chance to express their hopes and fears, which were outlined as below;

#	Hopes	Fears
1	How to sensitize people to eradicate poverty	Political influence to the project
2	Come up with a work plan	Un implemented program
3	Know the benefits to the community	The community might have a negative attitude towards the project
4	Get knowledge on KUMEA	Fear of not getting allowances
5	Get networks and collaboration	Failure to read well
6	Get Transport reimbursement	The project may not be sustainable
7	To get good information	Meeting will interfere with the program
8	Combat issues of climate change and increase food production	Farms activities will be delayed.

3.0 The Process Objectives

The main objective of this workshop was to engage community members of Vihiga sub-county to participate, in the project planning processes.

Other sub objectives included;

- Create awareness to the community about the project
- Identify problems affecting the community and suggest possible solutions.
- Identify local resources
- Offset biases during implementation
- Identify the roles of leaders and community in the project.

The workshop program was as indicated below;

DAYS	ACTIVITIES
Day One	<ul style="list-style-type: none"> • Climate setting. Orientation of the team on PRA. • Community Mapping exercise
Day Two	<ul style="list-style-type: none"> • Transect walk. Feedback from the transect walk.
Day three	<ul style="list-style-type: none"> • Problem identification, matrix scoring and ranking exercise. • Sites identification.
Day Four	<ul style="list-style-type: none"> • Wealth ranking. Gender task analysis. Resources access and control. Seasonal calendar
Day Five	<ul style="list-style-type: none"> • Institutional analysis. Resource management plan. Close.

The main findings, comparisons between different communities and the implications of the results to KUMEA are highlighted. The report details the analysis of the results of the following PRA exercises;

- Mapping exercises
- Transect walks and profile
- Seasonal calendar
- Institutional analysis

- Wealth ranking
- Gender task analysis
- Access and control of resources
- Problem identification, matrix scoring and ranking exercise.
- Resource management plan

These findings and outcomes of this exercise have enabled the PRA team to learn and appreciate households' situation as pertains to the utilization of water resources and sanitation practices. The facilitating team has appreciated the need to involve all communities and other stake holders in facilitating adaptation of best practices in water resources utilization, hygiene behaviours conservation agriculture.

The strategies recommended will improve communities and households to adopt positive water resource management and also scale up food and nutrition through modern agricultural technics; and further scale up implementation of sanitation and other hygiene enabling facilities. The recommendations suggested will further stimulate overall community participation in nutritional improvement through drip irrigation.

The analyzed PRA results were importantly fed back to households while conducting a planning meeting. PRA exercise will continue to be used by KUMEA as a planning, monitoring and evaluation tool to support participatory planning process (PPP) Tools and methodology; This report highlights the nine PRA tools that have different uses and applications;

4.0 Ward Mapping:

Purpose: To define together with, the community the boundaries and main features perceived important by the community.

Ward mapping was used to facilitate understanding and discussions on local water resources, farming systems, physical resources/ features and infrastructure considered important by the community. Four such maps were drawn for Central Maragoli, South Maragoli, Mungoma and Lugaga wards. Thank The maps revealed the following;

Central Maragoli	South Maragoli	Mungoma	Lugaga
<p>The area is well endowed with stones that can be resourceful to the program during implementation.</p> <p>There are potential resources like sand and stones that will be used during the project implementation.</p> <p>The ward is hilly and well placed with springs.</p> <p>Sanitation in schools is very low due to soil type which is rocky. Latrine coverage in homesteads is about 40%.</p> <p>The resident in this ward depend on springs as their main source of water.</p> <p>Subsistence farming is practiced in this ward.</p>	<p>The ward consist of rocky hills with steep terrains.</p> <p>Sanitation coverage is low, about thirty percent. It is attributed to the availability of alternative sites for excreta disposal.</p> <p>There are springs and streams which are used domestic purposes</p> <p>Local resources water and sanitation improvement are available. These are stones, sand and trees.</p> <ul style="list-style-type: none"> • Most youth in the ward are engaged in tree seedlings growing and selling. • Most family members keep Goats. • • 	<p>Both Mungoma and South Maragoli Wards have many similarities.</p> <p>The ward is hilly and rocky with steep terrains.</p> <p>Home stead members get their water from streams and springs.</p> <p>Local resources for water and sanitation improvement are available. These include stones, sand and trees.</p> <p>Latrine coverage is about 35 percent in schools and 40 percent at house hold level.</p> <p>The population in this ward keep Goats and practice appiary farming.</p>	<p>This is the largest ward among the four. It has two locations, which are Wamuluma and Lugaga</p> <p>The population practice subsistence farming. They grow local vegetables, maize and potatoes.</p> <p>They keep cows and Goats.</p> <p>Economic activities include sand harvesting bodaboda transport and tea growing.</p> <p>Latrine coverage is fair, about 60 percent in schools and 70 percent at house hold level.</p>

5.0 Transect walk

Purpose;

To provide additional mapping information about the community beyond that collected during community mapping exercise.

Transect walks were done in the four wards of Vihiga sub-county also, to develop familiarity with local farming systems, water resources and systems management, local geography, natural resources, community problems and opportunities to overcome such problems. The transect walk facilitated the opportunity and households to view, discuss and compare local resources between areas and different seasons. The walk revealed that;

- Resources like stones, sand, ballast, Bricks and blocks are locally found in three wards. During construction works, the program will have to source these materials from within.
- The four wards are fairly covered in terms of latrines. However, most of them lacks privacy and have slabs that pose occupational hazards. The slabs are temporary and weak.
- The community depend wholly on rain fed agriculture. During dry seasons they experience food shortage.
- Most of the community members get water from unprotected springs during rain seasons. It was established that most of the springs are perennial. There is need therefor to carryout detailed data collection on the water points to verify their viability.
- Fish farming is a technology already existing in the sub county, the program will therefore build on the existing technology to enhance fish farming.
- The sub county is well placed with springs. The program will carry out technical data collection to ascertain their viability.

6.0 Site Identification:

The following sites were proposed for program activities;

System	Site	Ward	Location	Sub Location
Wells	Jiinue	Central Maragoli	Emanda	Ivona
	Imonyero	Mungoma		Vigulu
	Mbihi	Lugaga+Wamuluma	Wamuluma	Mbihi
Springs	Mwenyelizi WG	Central Maragoli	Central Maragoli	Kidundu
	Lodondo	South Maragoli	South Maragoli	Lusiola
	Ivunandi SHG	Lugaga/Wamuluma	Lugaga	Ivunandi
Dairy Goats	Magaka SHG	Central Maragoli	Central Maragoli	Ikumba

7.0 Ranking of problems:

Purpose: To bring together all the different information collected so far and give the PRA team a chance to discuss and agree on priorities.

The team drew up a list of problems found in the two wards, discussed on the period they have had the problems and what has been done about it. The problems listed were as indicated below

;

Problems	Causes	Opportunity
Hunger	Lack of food Poor yield Poor income Lack of enough land	Apply Morden farming technics. Use of satisfied seeds
Sickness	Poor sanitation Malnutrition Poverty Lack of proper care.	Improved health care services Improved sanitation and nutrition
Insecurity	Poverty	Enhance community policing Encourage youth on farm activities.
Poverty	Stress/ Laziness Poor farm management	Use of certified seeds
Low productivity in farming	Lack of inadequate knowledge Poor seed selection. Lack of enough land Soil diseases and pests	Improve on soil fertility Organic farming Proper farm management.
Ignorance	Poor housing	

Some of the problems identified were inter-linked with the consequences. However, five of them stood out to be of great concern to the communities. They were ranked using pairwise ranking matrix and the results were;

- 1) Inadequate Knowledge
- 2) Poverty
- 3) Low income
- 4) Poor sanitation
- 5) Diseases and pests
- 6) Malnutrition

The table below illustrates how the ranking was done in plenary.

	Problem	Ranking						
1	Inadequate food	xxxxx	Low income	Poor sanitation	Malnutrition	Poverty	Inadequate Knowledge	Diseases and pests
2	Low income	Low income	xxxxx	Low income	Low income	Poverty	Inadequate knowledge	Low income
3	Poor sanitation	Poor sanitation	Low income	xxxxx	Malnutrition	Poverty	Inadequate knowledge	Poor sanitation
4	Malnutrition	Malnutrition	Low income	Poor sanitation	xxxxx	Poverty	Inadequate knowledge	Diseases and pests
5	Poverty	Poverty	Poverty	Poverty	Poverty	xxxxx	Inadequate knowledge	Poverty
6	Inadequate knowledge	Inadequate knowledge	Inadequate knowledge	Inadequate knowledge	Inadequate knowledge	Inadequate knowledge	xxxxx	Inadequate knowledge
7	Diseases and pests	Diseases and pests	Low income	Poor sanitation	Diseases and pests	Poverty	Inadequate knowledge	xxxxx
		Inadequate food	Low income	Poor sanitation	Malnutrition	Poverty	Inadequate knowledge	Diseases and pests
		1	2	3	4	5	6	7

8.0 Institutional analysis:

Purpose: To find out which organizations or agencies that are working in Vihiga sub county and the community's perspective about their role and how they relate to each other. This also served as a means to establish the gaps and overlaps.

Venn diagrams were used in this exercise to investigate linkages, relationships and interactions between different institutions or community groups.

The findings were;

That very many organizations work in the area which included Government institutions, Churches, Schools and Community based organizations. The community members appreciated the support they got from government and church supported water and agricultural programs in the ward . Such projects include; spring protection, piped water scheme, and roof catchment in some schools. Special appreciation goes to the services of the provincial administration in mobilizing the community towards education, water services and health. The team recognized the outstanding work done by the administration to increase the latrine coverage in the area. To that effect, the issue is on the use. The program will take the advantage of the existence of this institution to mobilize the community to participate in planning, implementation and evaluation of the activities.

9.0 Seasonal calendar:

Purpose: To show patterns of activities, labour availability, of both women and men, income in order to plan project activities as we take into account labour clashes.

It was revealed that;

There two main seasons in the community namely the short and long rains. The long rains start in the month March and end in the month of July. Short rain season starts in the month of September and ends in November.

Male labour demand is high in the month of January to March due to land preparation and planting; June and July due to harvesting. Female labour demand is high in the months of January to march as they are involved in land preparation, planting and cultivation; June and July during harvesting time.

Food availability is high in the months of July to October

Diseases affecting the community are high during the rain seasons. They include diarrhoea and malaria. It can be postulated to mean that the shallow wells and unprotected springs become contaminated at this time.

The program will take advantage of the less labour demand months in the community to facilitate the implementation of its activities. The program will add value to the community by improving their health through disease reduction and improved nutrition through conservative agriculture. The opportunity cost gained will be put on other economic aspects.

10.0 Wealth ranking:

Purpose: To find out criteria of wealth, range of resources within the community and identify the neediest groups and households within Vihiga sub county. This exercise was useful because the team was able to establish how wealth is seen in Luanda sub county without asking sensitive questions on people's income.

The group came up with criteria of wealth as shown below;

	Rich	Average	Poor
	Have access to credit facilities.	Can afford motorbike, second hand pick-up, hand cart	Cannot afford basic needs
	Have a car	Have semi-permanent house	Relies on others
	Live in massionates	Small piece of land	Have a small land acreage
	Have a minimum of five acres of land	Access to medium loan facility	Ignorance
	Have apartments for hire	Children go to ordinary affordable schools	Struggle in schooling
	Have business facilities	Can afford basic needs	Low social life
	Have large number of trees	Can afford to dig a well and draw water with rope and bucket.	Depends on rivers and springs for water
	Drilled borehole	Have medium social amenities	Depends on government enabling funds eg innua jamii
	Can afford 4 meals per day	Access two meals a day	Poor housing
	Practice modern methods of farming	Ordinary second hand clothes	Access one meal a day
	Children go to expensive schools	Use semi-permanent pit latrines.	

This exercise demonstrated that majority of people in Vihiga sub county, about 30% are poor,20% are rich and 50% are average. During discussions, it was noted that out of ten households in the area, six to seven are poor. They cannot afford two meals in a day. It was learned from the discussions that, poverty in the ward is attitudinal. There are opportunities if exploited, the population can move to average level.

It was noted that the Sub county has very resource people who can facilitate change in the society. These includes; community health promoters, CDDC who facilitate livelihoods in the community. The program will therefore build on this strength to facilitate adaptation and use of the interventions.

11.0 Gender Task Analysis

Purpose: To establish the different activity schedule and time expenditure of men, women and youth and how they affect women in participating meaningfully in water resources management.

The results revealed that women are occupied throughout the day and part of the nights with house and home stead chores. Men and youth have ample time to rest. However, men were found to be using the mental capacity more in developing life skills for family future projections.

On the seasonal calendar, women are seen to have more roles that men and youth. However, women appreciated that they have some free time in the year when they can participate fully in other development activities. To that effect the program will sensitise the community gender equity to allow women take part in decision making on water matters. .The tables below illustrate how the communities perceived their roles;

24HOURS ACTIVITIES FOR WOMEN		24 HOURS ACTIVITIES FOR MEN	
Time	Activities	Time	Activities
5:00 to 6:00 am	Praying and wake up	5:00 to 7:00am	Routine management of the homestead
6:00 to 7:00 am	Cleaning the house	7:00 to 7:30am	Breakfast
7:00 to 8:00 am	Preparing breakfast	7:30 to 10:00am	Active farm activities / marketing
8:00 to 9:00 am	Cleaning utensils	10:00 to 1:00pm	Active farm activities
9:00 to 10:00 am	Fetching water	1:00 to 3:00pm	Relaxing/ Lunch
10:00 am to 2:00 pm	Going to the farm	3:00 to 5:00pm	Active farm activities/ marketing
2:00 to 3:00 pm	Preparing lunch	5:00 to 7:00pm	Recreation/ leisure
3:00 to 3:30 pm	Washing utensils	7:00 to 9:00pm	Active family management
3:30 to 5:00pm	Looking after cattle	9:00 to 4:00am	Sleeping.
5:00 to 6:00pm	Looking for supper		
6:00 to 7:00 pm	Preparing for supper		
7:00 to 9:00pm	Relaxing, praying and preparing to go to bed		

12.0 Resources Analysis:

Purpose: To know and understand the different roles of men in regard to availability and control of different resources and benefits at community level.

Women and men have different roles in the society, different social tasks and different access and control of their resources. To address the needs of all women and men, these roles should be taken into account as other gender issues should.

The results from this exercise revealed that in Vihiga sub county, the community take women into consideration in terms of resource management at household level. There seem to be equal access and control of resources. During program implementation on construction of facilities, care will be taken to ensure that both men and female are consulted on land easements to avoid conflicts.

The table below illustrates the access and control of resources as perceived in the two communities.

Resources	Access		Control		Benefits	Access		Control	
	Male	Female	male	Female		Male	Female	Male	Female
Land	✓	✓	✓		Crops , income	✓	✓	✓	✓
Poultry	✓	✓	✓	✓	Eggs,Meat,manure and income	✓	✓		✓
Trees	✓	✓	✓	✓	Income, firewood,manure,shade beauty	✓	✓	✓	
Water	✓	✓		✓	Income, irrigation, cleaning , cooking and drinking		✓		✓

13.0 Resource Management Plan:

#	TECHNOLOGICAL OPTION	REQUIREMENTS	RESPONSIBILITY
1	Hand Dug wells Construction &Development	1. Cement	KUMEA
		2. River washed Sand	Community
		3. Ballast	Community
		4. Hard-core	Community
		5. Land	Community
		6. Digging up to water level	Community
		7. Skilled Artisans	KUMEA
		8. Upkeep of Artisans	Community
		9. Unskilled labour	Community
		10. Bricks	Community
		11. Water	Community
		12. Solar Pumping kit	KUMEA
		13. Drip irrigation kit	KUMEA
		14. Fencing poles	Community
		15. Barbed wire	KUMEA
		16. Nails	KUMEA
		17. Culverts	KUMEA
		18. Start kit of seeds	KUMEA
		19. Maintenance	Community
2	Spring Protection & Construction	1) Cement	KUMEA
		2) Sand	Community
		3) Ballast	Community
		4) Hard-core	Community
		5) Land	Community
		6) Skilled Artisans	KUMEA
		7) Upkeep of Artisans	Community
		8) Unskilled labour	Community
		9) PVC and GI pipes (draw-off)	KUMEA
		10) Tiles	Community
		11) Drip irrigation kit	KUMEA
		12) Fencing poles	Community
		13) DPC	KUMEA
		14) Barbed wire	KUMEA
		15) Nails	KUMEA
		16) Start kit of seeds	KUMEA
		17) Maintenance	Community
3	Ferro-Cement Water Tanks Construction &Development	1. Cement	KUMEA
		2. Sand	Community
		3. Ballast	Community
		4. hard-core	Community
		5. Skilled Artisans	KUMEA
		6. Upkeep of Artisans	Community

		7. Unskilled labour	Community
		8. Solar plumbing kit	KUMEA
		9. Drip irrigation kit	KUMEA
		10. Gunny Bags	Community
		11. Poles	Community
		12. BRC wire	KUMEA
		13. Gutters	KUMEA
		14. Water proof Cement	KUMEA
		15. Chicken wire	KUMEA
		16. Mosquito wire Gauze	KUMEA
		17. start kit of seeds	KUMEA
4	Ventilated Improved Pit(VIP) Latrines Construction& Development for Schools	1) Digging of pit	Community
		2) Bricks	Community
		3) Cement	KUMEA
		4) Sand	Community
		5) Ballast	Community
		6) GI Sheets	KUMEA
		7) Nails	KUMEA
		8) Timber	KUMEA
		9) Door shutters with accessories	KUMEA
		10) Skilled Artisans	KUMEA
		11) Upkeep of Artisans	Community
		12) Unskilled labour	Community
		13) Water	Community
		14) Y- 10 Reinforcement	KUMEA
		15) Wire mesh	KUMEA

The contribution from the community side was based on the available resources from within. This process was seen as a replication potential for the community after the project phase out.

Unskilled labour contribution will enhance technological transfer to the community which go a long way in enhancing the multiplier effect..It was outlined that the quantities of community contribution per facility will be as shown below;

FACILITY	Materials/ contribution required	QUANTITY	FACILITY	Materials/ contribution required	QUANTITY
Hand Dug Well	1. Sand	7 Tons	Ferro cement water tank	a) Hard-core	7 Tons
	3. Ballast	7 Tons		b) Sand	21 - 28 Tons
	5. Hard-core	7 Tons		c) Ballast	7 Tons
	7. Unskilled labour	3 People		d) Unskilled labour	4 People
Spring	1) Hard core	28 Tons	VIP Latrine	e) Poles	30 pcs
	2) Sand	7 Tons		f) Gunny Bags	30 pcs
	3) Ballast			1. Dig pit	
	4) Unskilled labour	3 People		2. Bricks	1200 pcs
				3. Sand	7 Tons
				4. Ballast	7 Tons
				5. Unskilled labour	3 People

14.0 Conclusion and main findings:

The results of PRA exercises in Vihiga sub county identified issues and opportunities for the program to support households improve their health and livelihoods and facilitate participatory planning processes.

- Mapping and Transect walk exercises demonstrated that communities in Vihiga sub county have poor access to portable water. springs noticed in use were unprotected and the water is not treated before use. This provides an opportunity for the program to assess and ascertain viable water points and protect.
- The exercise also revealed availability of local resources like hard-core, sand, trees while gender task analysis revealed that youth are available and have little roles to play in the community. Involvement of youth in the planning and implementation processes will not only be a success to the project, but will enhance their capacity as well in terms of skill transfer.
- During rain seasons both communities have access to water. This resource diminishes during the dry seasons. The program will therefore work with community to provide storage tanks on site to support in drip irrigation.
- The community members of this project area grow mostly maize, Bananas, vegetables and Tea. They have a liking for diversification of farming. They wish to increase vegetable planting to expand their agricultural produce and income.
- Latrine coverage in the project are if fairly high. The attributing factor is the force used by the administration to make people have toilets. Experience has it that such systems are not effectively used. The program will need to conduct a survey to ascertain the use of latrines as a safe excreta disposal method.
- Insecurity came out as an issue during wealth ranking exercise. This is serves as an early warning to the safety of the program facilities. There is need to sensitize the community to be able to own and take care of the facilities.
- The ministry of Agriculture through National Agriculture and Rural Inclusive Growth project have supported the community markedly in improving livelihoods and structures for sustainability. KUMEA will endeavour to build on this to enhance livelihoods.

Results the PRA exercises in Vihiga sub-county have provided a foundation for understanding local resources and water use. The exercise will continue to be under taken and used during evaluation and monitoring tool by the program.