

EASTERN WATER LIVELIHOOD PROJECT NOVEMBER 2022

WATER RESOURCE MANAGEMENT TRAINING REPORT FOR WATER USER COMMITTEES & TARGET SCHOOLS

"Developing capacity for sustainable water livelihoods" Report prepared by Peter M. Okaka

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1.0 EXECUTIVE SUMMARY

Community training workshop for Water Resource Management was carried for 10no.Water User Committees involved in Management of Water points for Eastern Water Livelihoods Project in Kibwezi Subcounty(Kibwezi East and West Wards). Training was conducted as from 8th November to 10th November, 2022.The workshop had 50 Participants (18men and 32 women) from 15no. Water points (10no. shallow wells fitted with solar pumping system and 5no. Ferro-cement in 5no. schools)

The workshop facilitators adopted a strategy to achieve the objectives of the trainings.

First, the workshop adapted a synergy of methods role-plays small-group discussions, pairing and action planning to allow for a critical interchange of ideas, to stimulate learning and to establish an on-going follow up through the process.

At the end of the workshops, evaluations were done to determine the level of understanding of participants, which was found to be satisfactory. Some of the objectives of the workshops were:

- 1. Develop capacity of Water User Committees in management of water points
- 2. Define the roles of various partners and stakeholders in management of community water and sanitation project
- 3. Build capacity for sustainability and effective use of the water points
- 4. Promote productive use of water and adaptation of livelihoods based on community water supply
- 5. Share experience in management of water points
- Develop Action plans for implementation by Water User Committees and Schools involved in Project activities.

The trained participants formulated action plans for implementation to enhance effective community participation in management of water points in target villages and schools. As part of preparations for operation and maintenance after construction the following key aspects were agreed on;

- a) Formation for sub-committees to coordinate various project activities
- b) Initiate mechanism to start income generating activities based on productive use of water to enhance improved livelihoods and sustainability of water projects
- c) Understanding of Water User Committee constitution and by-laws formulation
- d) Active involvement of community members in project implementation and management
- e) Scaling up sanitation improvements via ecological sanitation promotion at households level

The overall response has been positive based on the training evaluation checklist and outcomes. We therefore hope the process of follow up and capacity-building sessions will be strengthened by the various stakeholders involved and specific water user committees including schools task force committees for the schools involved as per the action plans formulated. This report provides the training process and outcomes with view of enhancing capacities of the various water points water user committees and target schools involved refresh their understanding of key sessions. The project team wishes to thank the various stakeholders involved in the training and their valuable contribution and support towards project implementation. We especially thank the sub county department of agriculture, Kenya Forest Service-Kibwezi substation ,KEFRI and provincial administration for providing relevant support to the schools and the various water user committees involved in project implementation process.

2.0 KEY RECOMMENDATIONS AND WAYFOWARD

- Every effort needs to be put in place to promote and ensure gender equity in all hygiene, water and sanitation implementation processes and to ensure that gender concerns are addressed in planning and implementation of hygiene, water and sanitation activities.
- 2) The Water User Committees' should mobilize communities' members to start mobilizing funds for operation and maintenance to enhance sustainability of the spring water points.
- 3) The Water User Committees need to start preparing for agroforestry promotion since the Kenya Forest Service Kibwezi sub-station will support them to establish treenurseries to scale up agroforestry implementation in each of the target villages where the water points have been constructed.
- 4) That the Water User Committees need to formulate arrangement of giving feedback to all the villagers through the village level barazas so that all the community members can be involved in project implementation and decision making process.
- 5) The Water User Committees should take a leading to ensure households sanitation improvements is attained in the respective villages
- 6) That Water User Committees to form subcommittees to enhance implementation of various project components.
- 7) That the water user committees to enhance membership drive so that they can easily mobilize resource for project development and up scaling.
- 8) Future project implementation process should integrate hygiene promotion by capacity building resource persons to enhance community appreciation of water services and scaling up improved sanitation thus adding value and quality of project interventions.
- 9) All water points to be fenced to secure the water points from encroachment of animals and also vandals
- 10) Cut off drains needs to be prepared for all the water points(Shallow wells) to control storm water from getting to the water point thus affecting the water quality of the water point.

3.0 WORKSHOP PROCESS FOR WATER RESOURCE MANAGEMENT TRAINING

DAY ONE: TUESDAY, 8TH NOVEMBER, 2022

THEME: INTRODUCTION& COMMUNITY MANAGEMENT PROCESS

ACTIVITY 1: PARTICIPANTS INTRODUCTION

Purpose

To reduce social distance, informally build group spirit and break the ice among participants with view of improving/facilitating interaction Participants discussed and agreed on the following likes and dislikes during the workshop

| LIKES | | DISLIKI | ES |
|-------|-----------------------------|---------|--------------------------|
| 1. | Leadership | 1. | Anti-development |
| 2. | Peace and unity | 2. | Lies |
| 3. | Faithfulness | 3. | Gossiping |
| 4. | Group work | 4. | Violence |
| 5. | Working hard | 5. | Late comers/time wasters |
| 6. | Time management | 6. | Loud sound |
| 7. | Transparency | 7. | Proud people |
| 8. | Planting trees& environment | 8. | Laziness |
| 9. | Cooperation | 9. | Corruption |
| 10. | Education and knowledge | 10. | Misunderstanding |
| 11. | Agriculture | 11. | Arguments |

ACTIVITY 2: PARTICIPANTS EXPECTATIONS AND WORKSHOP OBJECTIVES

Purpose

- 1. Share hopes, fears and expectations about the workshop that can be monitored during the training
- 2. Explore the participants' constructive criticisms
- 3. Build participants confidence and encourage communication on issues beyond the training program

| HOPES | | FEARS | |
|--------------|---|-------|--|
| 1. | Learn agriculture production | 1. | .Boring sessions |
| 2. | Get certified seeds for planting vegetables | 2. | Time consuming |
| 3. | Get certificate for participation | 3. | Language barrier |
| 4. | Initiate new projects for groups | 4. | Inadequate community participation |
| 5. | Knowledge of water point maintenance | 5. | Inadequate time to complete sessions |
| 6. | Experience in drip irrigation installation | 6. | Drying of water points |
| 7. | Learn productive use of water | 7. | Pests and diseases in food production |
| 8. | Learn group development | 8. | Break down of pumps |
| 9. | Sustainable water points and water livelihoods | 9. | Inadequate markets for food production |
| 10. | Good nutrition and healthy feeding | 10. | Poor food storage |
| 11. | Improve food production and sufficiency | 11. | Theft of water utilities |
| 12. | Promote self –reliance and sufficiency in food production | | |
| 13. | Marketing of food products | | |
| 14. | Proper storage of produced food stuff | | |
| 15. | Community participation in poverty reduction | | |
| 16. | Operation and maintenance of water points | | |

Workshop Objectives

- 1. Improve management of water resource facilities
- 2. Facilitate effective use of water points
- 3. Promote hygiene & sanitation improvements
- 4. Develop capacity for operation &maintenance of water points
- 5. Enhance good leadership to enhance sustainability
- 6. Enhance livelihoods through productive use of water
- 7. Develop appropriate Community & schools action plans

ACTIVITY 3: OVERVIEW NATIONAL WATER POLICY AND WATER SECTOR REFORMS

Plenary presentation

Objective: To enable the Water User Association leaders understand the changes in the water sector and the new institutions that have been created because of the reforms.

1. Introduction

- a) The water sector reforms are enshrined in the Water Act 2002, which provides the institutional and legal framework for implementing the sectors' policy objectives, which are:
- b) To conserving and protect water resources and allocating them in a sustainable manner
- c) To supply adequate and good quality water while ensuring safe disposal of wastewater and environmental protection
- d) To establish efficient and effective institutional framework, promoting and supporting participation of users
- e) To develop sustainable financing mechanisms. This will enable the management of effective water supply and sanitation development.

2. The Act Provides

- Clear definition of the roles of institutions in the sector to minimize duplication and conflicts;
- Separation of roles policy formulation, provision of water and sanitation services and management of water resources;
- Creation of new institutions to carry out the new mandates envisaged by the new water policy (decentralized institutional framework);
- Retain the residual role of the Ministry as sector coordination, policy formulation and development of sector legislation

3. The various institutions under the water sector reforms include the following:

- Ministry of Water and Irrigation (MWI)
- Water Resources Management Authority (WRMA)
- Water Services Regulatory Board (WSRB)
- Water Services Boards (WSBs)
- Water Service Providers (WSPs)
- Water Services Trust Fund (WSTF)
- Water Appeals Board (WAB)
- Catchment Area Advisory Committees (CAACs)
- Water Resources Users Associations (WRUAs

4. The Water Act 2002 separates policy formulation, regulation and services provision and management of water resources.

It defines clear roles for sector actors and a decentralized institutional framework. The following key institutions are involved in coordination and implementation of the water services in the country.

| Key institution | Role & Mandate |
|---|--|
| 1. Ministry of Water and Irrigation | Policy formulation and guidelines on Water Sector Management and services for all relevant key institutions |
| Water Resources Management Authority (WRMA | Management, protection and conservation of water resources Develop principles, guidelines and procedures for allocation of water resources; Monitor and enforce conditions attached to water permits; Manage and protect water catchment; Regulate and protect water quality etc. Ensure rational and equitable allocation of water resources in an integrated manner to reduce use conflicts while ensuring allocation for ecological sustenance) |
| 3. Water Services Regulatory Board (WSRB) | |
| Water Services Boards (WSBs) Seven water service boards at regional level | Responsible for efficient and economical provision of water services in their respective areas; Responsible for controlling water facilities, applying regulation on water services and tariffs, purchasing and leasing water and sewerage assets and contracting water services providers. |
| 5. Water Services Providers (WSPs) | Provide water services under delegated authority of WSBs Agreement with WSBs Approval of WSRB |
| 6. Water Services Trust Fund (WSTF) | Financing the provision of water services to needy areas of Kenya |
| 7. Water Appeals Board (WAB) | Handling appeals from any person having a right or proprietary interest, which is directly affected, by a decision or order of the Authority, the minister or the Regulatory Board concerning a permit or license. |
| 8. Catchment Area Advisory Committees (CAACs) | Advice the WRMA at the appropriate regional office concerning: 1. Water resources conservation, use and apportionment 2. Grant, adjustment, cancellation or variation of any permit 3. Any other matters pertinent to the proper management of water resources |
| 9. Water Resources Users Associations (WRUAs) | Identifying, quantifying and registering water consumers Water locations and catchments management Determination of water and sanitation investment demands Monitoring and information systems for water quantity and quality Conflict resolution and management of water resources in the catchments In recognition of the role of women in water resources management, at least 30% of members of WRUAs should be women. |

RATIONALE FOR WATER SECTOR REFORMS

| Changes in policy based on the following | Problems /issues that motivated water sector reforms |
|--|---|
| 1. Separation of functions; | 1. Degradation of water resources – decreasing dry season flows, |
| 2. Decentralization; | deteriorating water quality; |
| 3. Commercialization of servic | Degradation of water catchments and riparian areas; |
| 4. Stakeholder and private sec | 3. Poor reliability of water supplies; |
| participation | 4. Lack of financial resources; |
| | 5. Insufficient or inappropriate support; |
| | 6. Increasing incidence of water use conflicts; |
| | 7. High vulnerability to droughts and/or floods. |

A) KEY ASPECTS OF THE WATER SECTOR REFORMS

| 1. | Water as an economic and social good | This implies that although water comes free from the clouds, there are costs associated with managing and making the water available to consumers. Three key features are associated with treating water as a social and economic good |
|----|---|---|
| 2. | Commercialization of water services | This implies that water services should operate on commercial principles a) Charges for providing a service b) Revenues must exceed operating expenses c) There should be a mechanism for capital replacement d) Business should have proper books of accounts Water business should run as a separate entity from other activities (this is why all the municipal water supplies have been handed over to companies (Water Service Providers or WSPs) owned by the municipal councils — so that the water service provision runs as a separate operation to all the other affairs of the council) |
| 3. | Protection for vulnerable groups so that, despite water charges, they are not denied access to water for basic needs | Revenue from water business should not be used outside the water business (ringfence revenue). This means that water cannot be charged at high tariffs to finance, say new road. Block tariff structures — tariff structures that recognize different economic status within the consumer population |
| 4. | Economic value of water | This implies that water allocation should recognize productive, domestic and environmental uses of water. There are costs associated with managing the water resources. The following consequences are noted: 1. WRMA charges water use charges for resource management; 2. Water charges means there will be less wastage; 3. Polluter Pays principle. If someone pollutes or degrades the water quality so others cannot use it or have extra costs to clean the water before they use it, then the polluter, if caught, can be made to pay for the cleanup of the resource |

B) STAKEHOLDER PARTICIPATION

This means that private and community stakeholders should play a greater role in water services and water resource management based on the following rationale

- 1. Community members should have a greater voice in deciding how government resources are spent on water services and water resource management (Example: CWP can apply for CDF financing);
- 2. Community members should have a greater voice in deciding what kind and quality of services they require (e.g., communities must be consulted before projects are designed or implemented);
- 3. Community members should have a greater voice in how water is allocated to competing water demands (through a WRUA water resource users association comment on permit applications);

4. Private companies should be used more in the water sector to increase professionalism, performance or output based services, and competition (e.g. Municipal services are now run under a publicly owned company, borehole drillers are from private sector)

ACTIVITY 4: EFFECTIVE COMMUNITY BASED MANAGEMENT AND ROLE OF COMMUNITIES IN WATER AND SANITATION

Purpose

Community and participants to appreciate the good attributes of effective community management process Plenary and brainstorming session

| Attributes | Objectives and outcomes |
|-------------------------------------|--|
| 1. Discussions/Meetings | Helps us to come up with proper solutions It helps to make a work plan People will work voluntarily and willingly Work will be well done Help in choosing good activity |
| 2. Initiative | 5. Help in choosing good activity 1. Accomplish work on time 2. Accomplish standard work 3. It improves work standard |
| 3. Problem Solving | It allows exchanging of views It creates moral relationship among members It discourages misuse of funds It minimizes problems in the organization |
| 4. Organization | It creates social relationship It makes work easier Members can acquire loans/grants from the Government Can be able to solve problems Can be able to market goods anywhere Can learn different skills from others |
| 5. Self-Reliance | 1. To solve our problems accordingly 2. We need to sustain our daily needs 3. Create aspects of unity 4. It creates aspects of social, cultural, and economic independence 5. Creates the aspect of commitment and responsibility |
| 6. Committed and Responsible | 1 , |
| 7. Demand Driven | Sustain the needs of the community Resources of the community are well utilized Political interference is reduced to community project |
| 8. Action | To develop the group Helps choosing the right work that's affordable Helps improving the lives of people around us |
| 9. Planning | Planning help identify goals Helps in setting specific time to start and end projects Helps in determining the cost of material use Help in choosing the right activity |
| 10. Making Decision | 1. Helps get the right usable idea 2. For transparency and accountability 3. Brings unity in the group 4. Saves time |
| 11. Raising And Management of Money | Help get finance Helps the group to identify the method of using funds Helps the group to invest in money generating activities Help the group develop |
| 12. Empowerment | 1. Because we understand our needs 2. To work on our own/skilled 3. To exploit our skills 4. Helps us to make our own decisions 5. Eradicates the culture of corruption |

ACTIVITY 5: LEADERSHIP STYLES AND QUALITIES

Plenary presentation

Objective -To enhance leadership skills in the Water User Committee members.

a) Introduction to good leadership

| Who is a Leader | Leadership Qualities |
|---|--|
| A leader is a person who has ability to influence | There are many leadership qualities and some are |
| the community to work in harmony and to achieve | shown here below; |
| a set goal in an organization. | a) Ability to communicate |
| | b) Intelligent |
| | c) Courageous |
| | d) Flexible |
| | e) Have time for public service |
| | f) Self confidence |
| | g) Ability to inspire h) Integrity |
| | i) Good judgment |

b) Key attributes of Leaders

| Key Attributes | Rationale |
|--|---|
| 1. Acceptability | A person who commands respect and self-discipline. Has good interpersonal relations and meets minimum community norms of good conduct |
| 2. Job-Competence | Has a track record of exemplary performance in a skill area or areas |
| Ability to listen | Listens patiently for meaning and understanding |
| 4. Tolerance | Has the ability to listen to and accommodate dissenting views and constructive criticism |
| 5. Delegation | willing and able to share responsibilities in order to build the potential of others |
| 6. Flexibility | open to change and reason |
| Communicative Competence | Can influence others through logical and effective speech. |
| 8. Empathy | Ability to enter into others" feelings as a way of understanding a situation. |
| 9. Self-Organization | Sets an example on personal orderliness |
| 10. Self-confidence | Inspires confidence in others because he/she has the same. |
| 11. Honesty | Can be trusted at all times |
| 12. Reliability | Is dependable on words, promises and deeds |
| 13. Impartial | Is guided by fairness, truth and justice in making all decisions. |
| 14. Good time | Ensures good time management in all activities |
| manager | |

c) Leadership Styles

| Leadership Styles | Description |
|---------------------|---|
| 1. Autocratic | This leader centralizes leadership, does not allow any participation |
| Leader | but motivates subordinates. His motto is that of, "I will help you if you obey me". |
| 2. Democratic | Democratic leader decentralizes power and allows for group |
| Leader | participation in decision-making. The motto of this leader is, "Do you agree with my views" |
| 3. Free-Reign | A laizzer-Faire leader may be described as a "No decision-making" |
| (Laisez–Faire) | leader since he is passive and has no initiatives of his own. His motto is, "What do you want to do it". |
| 4. Dictator | This leader leads with an iron hand and subordinates live under fear. His leadership code is, "you must do what I say" |
| 5. Visionary Leader | This is a leader who lives in the future, he sets targets and works towards the achievement of the goals |

Group Task

Participants discuss /define the different types of leadership and analyze the advantages and disadvantages

A) DEMOCRATIC LEADRESHIP

This is a leadership where views from different people opposing minds are set together for better governance

| Advantages | Disadvantages |
|--|---|
| 1. Freedom of all people to participate | 1. It is time consuming-discussions |
| 2. All citizens views are accepted | 2. It encourages indiscipline |
| 3. It caters for all citizens regardless of | 3. It creates burdens to some communities |
| position | 4. It is not easy to create a decision |
| 4. There is freedom of choices | |
| 5. It allows opposition parties to criticize | |
| the Government | |

B) AUTOCRATIC OR DICTATORSHIP LEADERSHIP STYLES

| Advantages | | Disadvantages | |
|------------|--|---------------|--|
| | No contradiction to the passed law | 1. | Those governed have no freedom to decision making |
| 2. | It gives the leader easy time to | 2. | The Government suffers a great deal i.e. death |
| | pass laws | 3. | Always his reign doesn't last longer |
| 3. | No time for funds wasted on passing discussion in any motion | 4. | No development is noticed since most people don't participate |
| | for it needs less time for one to decide | 5. | Those governed easily drop out since their view are not considered |
| | | 6. | Triggers possibility of growth of other groups Spend funds of his group on his intention |

C) LAISSE-FAIRE LEADERSHIP STYLES

Definition: This is the type of leadership whereby followers or subordinates are given tasks and left alone to decide their way forward

| Advantages | Disadvantages |
|--|--|
| Decision of members is taken on put in action without forcing them | Encourage a lot of laziness amongst people |
| 2. Specific timetable is freely set by the members | A lot of time is wasted on |
| 3. Identification of problems within that period is | decisions |
| realized | Expert ideas are realized |
| 4. Easy to define goals in the group | 4. Inadequate follow –up |
| Minority building ideas is harvested from less | No peace and cohesion |
| active people in the group | No respect and discipline |
| 6. Exposes exploration & discovery in doing activities | 7. Destroys progress of the group |
| 7. Brings in different views in the group | due to conflicting ideas |
| 8. Encourages freedom of participation | |
| | |

Summary of leadership styles

| Best leadership style-Democratic & Reasons | Qualities of a Good Leader |
|---|----------------------------|
| ✓ Every member is involved | ✓ Listens |
| ✓ Everyone cares | ✓ Patient |
| ✓ Everyone is a beneficiary (both gender and youth) | ✓ Polite |
| ✓ Everyone contribute equally | ✓ Good role model |
| ✓ Everybody's opinion heard and respected | ✓ Determined |
| ✓ There is transparency and accountability Success of the project is high | ✓ Willing |

Conclusion-Leadership skills improvement is necessary if Water User Committees have to develop and serve the people in a cordial environment generally Water User Committees leaders has to be democratic.

ACTIVITY 6: GENDER RESOURCE AND TASK ANALYSIS

Purpose:

To depict and examine Gender roles /tasks in the area of water, sanitation and hygiene behavior To determine the different tasks women perform each day, the sequence in which they do them. How long each activity takes and whether the most time consuming activities are considered a problem. To raise awareness of men and women's workloads To depict and examine resources that are owned by men and women and which can be used for improvement of water, sanitation and hygiene behaviors.

Task

- ♦ Draw a 24-hour time cloak indicating activities, which are carried out by men and by women. ♦ List Resources available in a household and indicate who controls what resource between man/woman.
- ♦ Indicate who does what between men/women or both
- ♦ Who controls what resource between men/woman or both.

- ♦ Who should be the target for hygiene and sanitation awareness?
- •) What should be our gender strategies?
- •) Are current development initiatives designed at alleviating the burden of women?

Sample presentation for water and sanitation based on gender

6.1.1 24-GENDER O'CLOCK EXERCISE

a) 24-Gender o'clock women

| TIME | ACTIVITIES |
|-----------------|---|
| 5.00am | Waking up |
| 5.00am- 6.00am | Preparing breakfast for the family |
| 6.00am-7.00am | Preparing(bathing) children to the school |
| 7.00am | Having breakfast with family |
| 8.00am | Fetching water, Cleaning house and compound Opening for chicken Making beddings |
| 8.00am -9.00am | Washing of clothes and nappies Showering and bathing of the baby |
| 9am-10.00am | Preparing uji for those at the farm , Washing utensils |
| 10.00am-11.00am | Water collection and lunch preparation |
| 11.00am-2.00pm | Washing utensils and breast feeding |
| 2.00pm-3.00pm | Collection of firewood and going to the posho mill |
| 3.00pm-6.00pm | Attending the meetings and discussions Going to the market and the farm, Preparing supper and bathing children Preparing water for husband to bathe |
| 6.00pm-8.00pm | Serving supper |
| 8.00pm-10.00pm | Washing utensils and waiting for mzee |

6.1.2 GENDER TIME MANAGEMENT

| ACTIVITY | TIME | DURATION |
|----------------------------------|---------------------|---------------------------|
| 1. Fetching water | Early morning | 4 Hours |
| 2. Washing utensils | After every meal | 30Minutes |
| 3. Taking children to the clinic | Morning | A day |
| 4. Weaving | Leisure | 2 hours a day |
| 5. Milking | Morning & Evening | 1 Hour |
| 6. Thatching | Morning | 2hr to 4 hrs |
| 7. Waste disposal | Morning | 5minutes |
| 8. Pounding maize/Muthokoi | Any time | 30 minutes |
| 9. Digging and weeding | Morning | 3 hours |
| 10. Feeding babies/children | Any time | 20 minutes |
| 11. Reading magazine/newspapers | Evening | 30 minutes |
| 12. Washing latrines | Morning | 30 minutes |
| 13. Sweeping compound | Morning | 30 minutes |
| 14. Tethering | Morning | 1 Hour |
| 15. Cutting trees | Any time | 1 Hour |
| 16. Market | Morning | A day once a week |
| 17. Washing clothes | Morning | 3 days per week |
| 18. Breast feeding | Any time | 10 to 20 minutes |
| 19. Fetching fire wood | Evening | 3 hours |
| 20. Cooking | Morning and Evening | 20 o 30 minutes or 1 hour |

6.1.3 RESOURCE ANALYSIS OF MAJOR RESOURCES AT HOUSEHOLDS

| RESOURCE | WHO HAS ACCESS? | WHO CONTROLS? | WHO BENEFITS? |
|---------------|-----------------|---------------|---------------|
| 1. Land | Man/woman | Man | Man/woman |
| 2. Trees | Man/woman | Man | Man/woman |
| 3. Money | Man/woman | Man/woman | Man/woman |
| 4. Livestock | Man/woman | Man | Man/woman |
| 5. House | Man/woman | Man | Man/woman |
| 6. Utensils | Man/woman | woman | Man/woman |
| 7. Radio/TV | Man/woman | Man | Man/woman |
| 8. Bee-Hive | Man | Man | Man |
| 9. Farm tools | Man/woman | Man | Man/woman |
| /equipment | | | |

Summary of the Gender in water, hygiene and sanitation Key issues noted

- Women overburdened and may not have time to attend hygiene and sanitation promotion sessions
- Men have adequate time to attend hygiene and sanitation and sanitation sessions but have no time to implement
- Women do most of the household chores pertaining to hygiene and sanitation
- Most of the decision-making process based on hygiene and sanitation practices
- Children are taught positive hygiene and sanitation practices by women and good health by all.

6.1.4 Proposed ways to improve the Gender disparities in water and sanitation together with strategies to promote gender equity in hygiene, water and sanitation

| Ways | to reduce Gender disparities | Strate | gies to promote Gender equity |
|------------------|---|-----------------|---|
| 1. 2. 3. | Community sensitization in gender equity Discarding negative cultural values Sharing responsibilities among the family members | 1. 2. | Gender issues i.e. role of women and girl child |
| 4. | Provide equal opportunities and fairness to both women and men | 3. 4. | Facilitate shared decision making and chain of command Respect one another i.e. Men respect to women Promote |
| 5 . 6. | Promote basic education for the girl child Men to share with women some of the household activities especially taking children to school during their spare time | | positive cultural values that promote women |

6.1.5 Gender checklist for WASH programming

| General data | Water collection, transportation, and allocation at household (HH) level | Access to, and control over, water source |
|--|---|---|
| ✓ Total number in family. Data disaggregated by age and sex. ✓ Number of families headed by females, and number by males. Child-headed families. ✓ Number of unaccompanied boys and girls, elderly, and disabled people. | ✓ Patterns of water collection (water fetching and carrying): time spent (hours / day). ✓ Relationship between water collection and girl child school attendance. ✓ Gendered division of access to means of water transportation. When the family has access to private transport (bicycle, donkey, motorbike, etc), do men retain priority use, leaving women more reliant on travel by foot? ✓ Patterns of water allocation among the family members (sharing, quantity, quality). | ✓ The different uses and responsibilities for water by men, women, and children (e.g. cooking, sanitation, gardens, livestock, etc.). ✓ Who makes decisions about different water use in the community (water for irrigation, domestic use, livestock watering, water selling, brick making, etc.)? ✓ Do women have access to income generation activities related to water |

6.1.6 Guidelines on Gender time management and technical options

| Gender division of time-use in the HH | Technical options / operation and maintenance (O&M) |
|---|---|
| Who makes the decision about the time spent at HH level? What is the normal means of handling, storing, and treating water at HH level? Who is responsible for HH hygiene? Who is responsible for hygiene and sanitation practices at community level? If women are responsible for the hygiene status of themselves and their families, what level of knowledge and skills do women have? | What is the division of responsibilities between men and women for maintenance and management of water and sanitation facilities? Are women equally represented in community development committees, water committees, community associations, etc? Which roles do women take on in those associations? Do they have access to the treasury? Who usually maintains the latrines/water points? Does the community need technical training on latrine operation and maintenance and hygiene, and/or managerial training for maintenance? What are the options for convenient user-friendly designs, low cost and affordable facilities? Are the physical designs of water points and latrines appropriate to water source, and the number and needs of users? Does the community need facilities adapted for disabled/elderly people (especially women)? |

6.1.7 Guidelines on Gender privacy and traditional roles

| Privacy | and security | Sanitary habits of women and girls | |
|----------|---|--|---|
| | Location and design for privacy and security of water points/latrines and bathing facilities. Safety around water sources, especially if women and children are primary users. Do women feel constrained to travel alone in public to the water point/sanitation facilities because of real danger of aggression or social disapproval | What is appropriate to discuss? What types of materials are appropriate to distribute? How are children's faeces dealt with? What are the cultural assumptions with regard to water and sanitation activities during pregnancy, menstruation, anal cleaning, etc? | , |
| Cultural | issues | Traditional gender roles and power structure | |
| | What are the main cultural issues, which impact upon women's and men's access to water and sanitation? Do men and women share the same | How do women perceive themselves in traditional roles and active participation? How much of this can be changed and how much cannot be changed? | |
| | latrine (at HH level and Community level) | 2. Who decides how much money should be spent on water? | |

6.1.8 Why should there be equal gender representation in the Water User Association?

- 1. Women are the principal users of a water system. It is in his or her interests more than anyone else for the water system to function properly.
- 2. As principal users of water, women are the best judges of the most suitable standard of service required (e.g. when water point should be open) and are the first to recognize problems.
- 3. Women have considerable knowledge of existing water sources, the amount of water, which ones are seasonal and perennial, information that is very important at the planning stage.
- 4. Women and men's opinions and preferences may differ. It should not be assumed that an all-male committee would always represent the best interests of all users of a water system. Within Kenya women and girls represent more than half the population of the village, if they are left out you lose the opinions, good ideas and commitment of the majority of the community.
- 5. Women are less likely to leave the village to seek work. past experience has shown than a significant number of men trained are not on hand to deal with problems when they arise, because they have left the village for work or national service. (Members who are likely to leave the village for a prolonged period should not be chosen as members of the committee or to be an attendant.

6.1.9 Suggestions for improving gender awareness

Community consultation

- Ensure recruitment of men and women on the team.
- Ensure that women are available to talk to women, and men to men, in the assessment (especially when discussing sanitation and personal hygiene).
- Work separately with women's and men's groups, where necessary, to counter exclusion and prejudice related to water, sanitation, and hygiene practices.
- 4. Women and men need to be consulted about convenient times and locations for meetings, and they need time to be given time to reorganize their schedules.
- Involve both men and women in discussions on water and sanitation, including personal hygiene habits, general health, and the needs and fears of children (do not just focus on women).
- Conduct consultations in a secure setting where all individuals (including women and girls) feel safe to provide information and participate in discussion and decisionmaking.
- Include questions on cultural and ethnic beliefs on water usage, responsibilities, and sanitation practices.

Social research

- Through interviews with key informants, try
 to understand the power and social relations
 in the target communities. Examine the roles,
 responsibilities, processes and workloads of
 children, women, and men, and the rich and
 the poor, in terms of labour in their homes,
 hygiene practices, and water use and
 management.
- Determine how women's and men's participation and skills acquisition influence power dynamics at the HH level. Be aware of possible increases in domestic tensions and provide basic conflict resolution and support where possible.

Link to hardware / community training

- Provide 'coaching' advice to engineers and hygiene promoters on how to work with the community and make effective use of women's knowledge of the community.
- Provide formal and on-the-job training for both men and women in construction, operation, and maintenance of all types of water and sanitation facilities, including wells and pumps, water storage, treatment, water quality monitoring, distribution systems, latrines, and bathing facilities.
- Ensure that the training is suited for the specific needs of women (timing, language, educational requisites, etc). The training needs to be especially tailored to the specific requirements of poor women and vulnerable groups.
- 4. Offer training in water management to men (preferably using men to men training), especially for single male-headed HHs in which they have previously relied on women to collect water and to manage the cooking, personal hygiene and domestic needs for the family.
- Work with community groups to expand, operate, and maintain communal facilities, and dispose of liquid and solid wastes.

Gender sensitization

- Develop special activities on gender sensitization for men.
- 2. Target hygiene programs not only to mothers, but also to fathers and other carers of children.

ACTIVITY 7: FINANCIAL MANAGEMENT AND RECORD KEEPING

Purpose

To make the leaders understand how to handle primary documents and also apply them in the day to day running of the Water User Committees

Primary documents- where initial transactions in a Water User Associations are done e.g. Receipts, Vouchers, Bank Statements, Cheque Book, Invoices, Banking Slips, Purchase Order Book **Secondary documents-**Cash Book. Ledger. Inventory

| Type of documents | Information required |
|----------------------------|--|
| 1. Asset Registers | Maintains record of Water User Association assets |
| 2. Invoice | List of items purchased (quantity, quality ,price and terms of sale offered by supplier) |
| 3. Members register | List of members and their personal names among other details |
| 4. Receipt Books | Record of all the money paid by the Community members |
| 5. Payment Voucher | This shows that money going out was paid for the right purpose |
| 6. Stock taking Journal | Shows quality of stock, status and value |
| 7. Order Book | To order for services and goods |
| 8. Delivery Note | It shows goods and services delivered |
| 9. Cheque | Used for paying or settling a debt |
| 10. Cash Book | Record of all money paid in or out through cheque or cash |
| 11. Ledger- | Summary of all transactions in a business |
| 12. Statement of Affairs | -Reflects a summary of all accounts on a ledger |

DAY TWO: WEDNESDAY 9TH NOVEMBER, 2022

THEME: GROUP DEVELOPMENT, HYGIENE &SANITATION IMPROVEMENTS

ACTIVITY 8: GROUP DEVELOPMENT DYNAMICS

Purpose

To enhance group leadership skills and form the leaders on critical stages in-group or Water User Committee Development

Methodology -Plenary presentation

8.1.0 Introduction

What is a Group? A group is a collection of individuals intending to have a common aim under the direction of one leader. Members of a group share a sense of common identity. Therefore a group is more than an aimless crowd of people

Importance of a Group?

Individual need groups since they provide:

- Stimulus
- Protection
- Assistance and other social and psychological requirements

8.1.1 Group Behavior analysis

| Behavior/Cohesiveness | Development |
|---|---|
| Stage 1: Forming A Water User Committee at this stage finds out why it | Undeveloped team Feelings are avoided; objectives are uncertain. The group starts |
| should exist. It should find out what tasks, rules and methods it is going to adopt. To achieve their | to acquire information and resources and mostly relies on the leader for decisions. |
| objectives. | leader for decisions. |
| Stage2: Storming | Experimenting Team |
| During the storming stages a Water User Committee | Issues are faced more openly and listening takes place. |
| develops internal conflicts and members resist tasks | |
| and by —laws/rules and emotional levels are high. | |
| Stage3: Norming | Consolidating Team |
| Conflict is settled; cooperation develops; | Personal interaction is established on a cooperative basis, tasks |
| Views opinions and ideas are exchanged and new | and roles are clarified, objectives agreed and tentative |
| standards of relations (norms) are developed | procedures implemented |
| Stage 4: Performing | Mature team |
| Teamwork is achieved; roles are flexible; solutions to | Feelings are open, a wide range of options |
| problems are found and implemented | Considered, working methods are methodical leadership styles is |
| | contributory, individuals are flexible and the group recognizes its responsibility. |
| | 1 |

8.1.3 Development of groups and Water User Committees

| eason | s for Formation of Groups | to | actors that hold a group gether and disadvantages of aving a group |
|-------|--|---|---|
| 1. | Certain tasks can only be performed through the combined effort of | A belief in shared aims and objectives. A sense of commitment to the group. | Similarity of work Physical proximity Group size (smaller rather) |
| 2. | a number of individuals working together; | Acceptance of group values and norms. | than large) 4. Commitment to deal with |
| 3. | Groups may encourage cooperation between members; | A feeling of mutual trust and dependency. | threats from outside and within |
| 4. | Groups may provide companionship and a source of mutual | 5. Full participation by all members and decision making by consensus. 6. A free flow of information and | 5. The prospects of rewards6. Leadership style of the committee /manager |
| 5. | understanding and support from colleagues; | communication. 7. Open expression of feelings and | 7. Common social factors (age, race, social status, |
| 6. | Membership of a group provides the individual with a sense of belonging; | disagreements. | etc) sadvantages of having a group: 1. It can be time consuming in |
| 7. | The group provides guidelines on generally acceptable behavior; | A lower level of turnover, absenteeism, errors and complaints | making decisions; 2. It can promote dependence |
| 8. | The group may provide protection for its membership | | of individuals on the group |

ACTIVITY 9: OVERVIEW AND FORMULATION OF WATER USER COMMITTEES CONSTITUTION/BY-LAWS

Objective

Enhance better understanding of the Water User Committee constitution and key articles for effective management of water projects

Methodology: Plenary presentation & Brainstorming

9.1.0 Introduction

| What constitution defines | Rationale for good constitution | |
|--|--|--|
| Objectives of the group/Water User Committee Organizational structure with committees and officials Who has authority to make decisions on behalf of the group | Help the group/Water User Committee to realize its objectives Protect individual interests within the context of serving the group objectives Minimize risk to the project from authoritarian or | |
| What funds can be used for and how they should be accounted for | weak leadership 4. Provide systems of accountability to the membership | |
| How to elect leaders and how long they can stay in office | 5. Make the group operate efficiently6. Minimize conflicts by being clear on rules and | |
| How often meetings should be held and how they should be conducted | procedures | |
| 7. How the constitution can be changed | | |

9.1.1 Issues arising from constitutions

| Common cases where Water User Committees' constitutions are overlooked | Steps that a group/Water User Committee can take to minimize the constitution being overlooked | |
|---|--|--|
| Timing of meetings; Conduct of General meetings; Notice period for General Meetings; Frequency of elections; Holding committee meetings when there is a lack of quorum; Utilization of funds for purposes stated in constitution | Ensure all project members have a copy of the constitution and have had a chance to be inducted "into the constitution"; Appoint an oversight or audit sub-committee whose job it is to ensure that the constitution is followed and to raise any points to the main committee where the constitution is overlooked; In cases where the constitution is impractical, then it is necessary to make a change to the constitution so that it can be followed more easily. | |

9.1.2 The risk to the group in the event that the constitution is not followed includes:

- 1. Authority of the constitution is diluted and no longer serves as the guiding tool for the group;
- 2. Conflicts can arise because the rules" have been suspended";
- 3. Fraud and malpractices can be allowed to continue without the members realizing

9.1.3 Different type of meetings as stipulated in the constitution

| Type of meetings | Rationale | | |
|-----------------------------------|---|--|--|
| 1. Committee Meetings | Held regularly, e.g. once every month by the project committee members; To discuss matters mainly concerning administration of the project. | | |
| 2. Sub- Committee Meetings | A project committee may divide itself into various subcommittees These hold their meetings as necessary to discuss specific matters of the project | | |
| 3. General Meetings | Organized and called by the committee once every year The purpose is to inform members about issues concerning their Project accounts and other specific matters (such as elections and project progress). | | |
| 4. Special General Meetings | Held when there is special business to be discussed by the members. These meetings are often seen as extra-ordinary meetings | | |

ACTIVITY 10: DUTIES AND RESPONSIBILITIES OF WATER USER COMMITTEE OFFICIALS

Purpose

To enable the members know their duties and responsibilities in the Water User Committees **Methodology: Plenary presentation & Brainstorming**

10.1.0 Outcomes of the respective roles of Water User Committees

- 1. Attending meetings
- 2. Convene meeting General Meeting as empowered by-laws
- 3. Security of assets
- 4. Ownership of assets
- 5. Expenditure approval
- 6. Convening Special General Meeting (SGM) as per by laws
- 7. Budget approval
- 8. Approval of by-laws
- 9. Amendment of by-laws
- 10. Electing Committee members
- 11. Participation in the project activities and forums
- 12. Contribution to the group's activities and growth
- 13. Task force committees to undertake other key related developments

10.1.1 Roles and responsibilities of some Water User Committee positions

| Positio | n | Role | Responsibilities |
|---------|-------------------------|--|--|
| 1. | Water user | To use the water responsibly and efficiently | Pay the agreed amount on time Report misuse of the water point |
| | Project Members | To ensure the project continues to provide value for money giving the benefits it was developed to provide To keep the leaders accountable in ensuring the service delivery | Developing and following an effective constitution Electing an effective management committee Keeping the management committee accountable for their actions Attending project meetings when required and giving ideas on how best to run the project Participate in community work whenever necessary Offer to serve in the leadership |
| 3. | Management Committee | To manage the project effectively and sustainably | To organize and call General Meetings and other meetings To run project bank account To prepare project budgets To recruit and employ staff To plan and implement water development activities including tariff setting, metering, membership registration, society registration, etc To ensure equitable distribution of project benefits To keep and maintain project records To ensure project accounts are audited Conflict resolution |
| | Chairman | Provide leadership to the management committee to enable it to fulfill its roles | Chair all project meetings Guide on project policy matters Ensure all project records are properly maintained Ensure smooth running of project activities Enforcement of by-laws |
| | Secretary | Keep all the records of the organization | To record minutes of all meetings To maintain a Minute Book To maintain a Members Register To ensure that the water supply correspondence is correctly and efficiently attended to |
| 6. | Treasurer | To be responsible for all finances of the organization | Keep records of the WUA assets and finances To check all payments To sign all payment vouchers To ensure banking of all monies received on behalf of the water supply |

ACTIVITY 11: RIGHTS OF WATER USER MEMBERS

Purpose

To make the leaders understand the duties and responsibilities of a member of Water User members

Methodology: Brainstorming and plenary presentation

Task

Identification rights for Water User Association members

11.1.0 Key outcomes from the discussions

Rights of members agreed as follows

- 1. Attending meetings
- 2. Convene meetings e.g. Special General Meetings as empowered by the constitution
- 3. Ensure security of assets
- 4. Expenditure approval
- 5. Convening General Meeting as per the constitution
- 6. Budget approval
- 7. Approval of constitution
- 8. Amendment of constitution
- 9. Electing committee members
- 10. Participation in project activities
- 11. Contributions to the Water User Committee activities
- 12. Scrutiny of the Water User Committee funds
- 13. Elect leaders of the Water User Committee

ACTIVITY 12: ELECTION OF WATER USER COMMITTEE LEADERS

Objectives

To make the leaders understand the importance of elections and also undertake peaceful elections.

Methodology: Plenary presentation & Brainstorming

12.1.0 What is Election?

There are some terminologies that should be made clear so as to understand what election is. The terminologies are;

- Election means the process of selecting a candidate to represent interests of others who have common appl.
- ❖ Appointment Choosing a person through writing.
- Nomination Choosing a person through a word of mouth (verbal statement).
- Electoral area means a region that is represented by or located to candidate.
- Returning Officer means a person appointed by the authority e.g. Social services to be in charge of an electoral process in a defined electoral area.
- Presiding Officer means a person in charge of an electoral process.

12.2.0 Who Should Carry Out Election?

In the social circumstances the community who may be described or categorized as constituents, members or congregation carries out elections. Socially these persons belong to various types of community groups such as political party, business/social groups or a church. In their own rights members of these groups are mandated to carry out elections.

Elections are carried out in a duly convened meeting. The meeting is normally programmed to take place within a given time, for example every year or after every two, three or five years. A notice of the election must be given and issued out to allow members (stakeholders) to participate effectively in the elections.

12.3.0 Who Should Be Elected?

An aspiring candidate normally presents him/her —self to the members (people / members) for consideration of the election. From experience the eligibility for election depends on;

- ❖ Age -A candidate should be between 21 and 70 years of age.
- Active-A candidate must be active in the affairs or interests of the Water User committee
- Has interest -A candidate must have interest in the Water User committee
- Literate -A candidate must have basic literacy.
- Committed -A candidate must not be delinquent or of unsound mind.
- Character-Must have good character and be a role model.

12.4.0 Model of Elections

There are various styles of conducting an election, the main ones being;

- Secret ballot
- Show by hands/Raising hands
- Queuing, popularly known as "Mlolongo"

All these styles or strategies have one common feature i.e. One-person one vote

12.5.0 Timing of Election

Elections are conducted periodically and must be spelt out very clearly in the regulations/ constitutions of the Water User Committee.

12.6.0 Election Procedures

Some of the election procedures are;

- Nomination of candidates
- Registration of members
- Voting.
- ❖ No proxy *
- One person, one vote
- No casting vote

NB: * some community groups allow proxy voting.

12.7.0 Institutions Created By An Election

An election creates offices such as those of a chairman, vice chairman, treasurer and secretary. These officers or posts are usually referred to as executive. Other officers are those of deputies.

12.8.0 Term of Office

Elected persons hold office for a specified period of time, which is defined in the constitution. The life of an office is normally linked to timing of elections.

12.9.0Appeal against an Election

Traditionally there are accepted ways of solving common disputes in a community, which may include election disputes. Rather than go through the expense of another election the authority may use a number of methods to settle election dispute such as;

- Panel of elders
- Arbitration.
- "A Chance Method" to decide the winner. Such methods are;
 - Flipping a coin
 - Taking a number from a box

Conclusion- Holding proper elections is one way of sustaining interest in community organizations. However elections can be volatile where the resources of Water User Committee are more and therefore more people become interested.

ACTIVITY 13: CODE OF CONDUCT AND ETHICS FOR WATER USER COMMITTEE LEADERS

Purpose:

This code contains general rules of conduct and ethics to be observed by the members, so as to;

- Enable the Water User committee to offer service to its members and to facilitate the success of implementation of the water and sanitation projects of the Water User Committee,
- 2) Ensure that Community uphold the democratic principles of accountability, transparency and good governance
- 3) Improve the leadership and governance skills to its members
- 4) Building capability for teamwork
- 5) Instil judgement and effective decision making
- 6) Create effective communication skills

Plenary presentation

Introduction

A Water User committee is an autonomous association of persons within a community united voluntarily and in this case to meet their common water services needs and to improve their social standards, through jointly owned commercial and democratically controlled enterprise

The management of Water User Committee is vested in a duly elected management committee whose members are expected to perform their duties with accordance to the water user constitution. This requires performance of duty prudently and diligently with loyalty, integrity, impartiality, and on behalf of the members to whom they stand accountable and responsible

13.1.0 Application: Members shall adhere to this code in both their public and private lives

| | Integrity, Efficiency Responsibility to the Water User Association | A member shall: a) Perform their duties with diligence, prudence and efficiency b) Serve with courtesy, honesty, partiality, integrity, probity and objectivity c) Be committed to duty and be available for the duties bestowed by the Water user committee d) Make sure that non-official activities do not interfere with their official duties or affect the dignity of their office e) A member shall ensure that he carries out their duties in away that is consistent with being part of their association f) Maintain at all times the ethical standards, which the community expects of him in transacting official business g) Except furtherance of official duties, not publicly comment on the matters in relation to which he has been professionally involved, or h) Expressly by implication, not represent that any public comments they make reflect the views or opinions of their association if that is not the case |
|---|--|---|
| | Religious Neutrality | a) Regardless of religious belief and opinion maintain neutrality and not make comments that criticise a religion or way of religious belief |
| | Ethnic Affiliation | a) Regardless of their ethnicity maintain neutrality and not make public comments that criticise an ethnic community |
| | Political Affiliation | a) A member shall not be a holder of apolitical office at the same time as they are a member b) A member is entitled to their own views on political matters, but shall not be permitted, in the course of the performance of their duties, to express those views publicly or seek to influence their colleagues or those who seek their services to subscribe to their political beliefs |
| | Political Comments | Any member shall not: a)Make public comments that support or criticise apolitical party b)Make public comments that may compromise, or may reasonably be seen as to compromise, the political neutrality of the office |
| | Canvassing Gifts etc | a) A member shall not canvass either directly or indirectly for any favours or personal interests in the committee or in the association b) A member shall i) shall not accept or request for gifts in exchange of favours ii) it is the duty of a member to make reasonable inquiry before accepting such gift c) An officer shall neither ask for nor accept property or benefit of any kind for himself or for any person, on account of anything to be done or omitted to be done, by him in the discharge of his duties by virtue of his official opposition d) An officer who is given a gift described above shall, even where the gift is deemed to be the gift of the Association e) Report the matter to management committee, which shall direct the appropriate mode of disposal of the gift and; f) Comply with any such direction |
| | Conflict of interests | A member is required to observe the following requirements in relation to their private interests b)They shall not associate outside their official duties with any financial, or activities in circumstances where there could be suspicion that their official position or official information available to him was being turned to their private gain or that of their associates; c)They shall not engage in any occupation or business that might prejudice their status as members or bring the association in disrepute |
| | Improper Enrichment | A member shall not use their position to improperly himself or to others; a) Without limiting the generality of the above, shall not:- Accept or reject gifts or favours from person who:- i) Has interest that may be affected by the carrying out of the members work or duties ii) Carries on regulated activities with respect to which the member organisation has a role iii) Has contractual or similar relationship the members organisation/association b) For the personal benefit of himself or another, use or allow the use of information that is required in connection with the members duties and that is not public c) Provided that the above part does not prevent a member from accepting a gift from a relative or friend given on special occasions recognised by custom d) Award contract or influence the award of a contract Himself i) A spouse or relative ii) A business associate iii) A corporation, partnership or other body in which they has an interest e) If any of the above is interested in a tender, shall declare that relationship or interest and abstain from voting |
| 1 | Conduct of Private affairs | a) A member shall conduct their private affairs in a way that maintains public confidence in the integrity of their office b) A member shall not evade taxes c) A member shall not neglect their financial obligations or neglect to settle them |
| | Sexual Harassment | a) A member shall not sexually harass a member of the public or fellow member i)'Sexually harass' includes doing any to the following, if the person doing it knows or ought to know that is unwelcome ii) Making request or exerting pressure for sexual activity or favours iii) Making intentional or careless physical contact that is sexual in nature iv) Making gestures, noises, jokes or comments, including regarding another sexual activity |

ACTIVITY 14: ENVIRONMENTAL HEALTH AND SANITATION

Overall objective

Understand the relationship between water, hygiene and sanitation for health improvements

Methodology: Group discussions using PHAST tools

14.1.0 GROUP WORK: 3-PILE SORTING CARDS EXERCISE-HYGIENE BEHAVIOUR Purpose

- 1. To identify what households consider to be good and bad hygiene practices
- 2. To identify those good and bad hygiene practices that households honestly carry put and those good practices that they do not
- 3. To identify those factors that prevents households from performing the good practice.

Task

- 1. Arrange posters in terms of good, in between and bad hygiene practices
- 2. Discuss and agree what actions can be done to improve the bad hygiene practices to good.

Sample presentation in plenary

Good practices In between **Bad practices** Use of dish rack Disposal of Faecal matter Defecating in water bodies Feeding the child with a clean spoon Defecating/urinating within the homestead Washing clothes nearer to the water point Storage of water in covered container Incomplete disposal of Faecal matter bathing and drawing water from the same Washing hands with running water Uncovered water storage containers open pail placed from chicken to drink water Collecting of garbage into a rubbish pit Improper coverage of domestic water from open pail containing water and placed Drawing water using covered containers Drawing water form unprotected well for animals (dog) to leak Washing hands with soap from the same Cleaning the environment transport water from open container and Boiling water basin leaves placed inside the water to avoid spilling Bathing in an open traditional bathroom Washing hands after visiting the toilet defecating in open fields Good practice of washing but using water Boiling of water sharing food with animals from the same basin Washing food before cooking washing face/drinking water from the water Using different cups for drawing and drinking

Actions that can be done to improve community hygiene and sanitation situation as agreed in the plenary from all the groups

- Use containers with lid when transporting water
- Use of proper means of waste disposal e.g. Pit latrines
- Feeding and drinking troughs for animals
- Facilitate hygiene and sanitation promotion
- Protection of water points
- Enhance hygiene and sanitation promotion
- Avoid taking water directly from the storage and containers/have cups for drinking water
- Avoid urinating in the water bodies
- Provide drinking troughs for livestock
- Control Environmental pollution
- Avoid bathing in rivers

14.2.0 GROUP WORK 2: SANITATION LADDER EXERCISE-SANITATION IMPROVEMENTS

Purpose:

Assess the level of sanitation standards. It can be used to promote sanitation awareness and measure practices.

Task

- 1. Arrange the sanitation options from the best to the worst
- 2. Indicate where most communities are and where they desire to be
- 3. What can be done to improve the situation
- 4. Why the community is in the current situation
 - a) Why communities are in the current situation?
 - b) Lack of resources
 - c) Lack of knowledge
 - d) Satisfied with situation
 - e) Low hygiene and sanitation awareness/
 - f) Community resistant and taboos
 - g) Low capital/funds to invest in sanitation improvements

b) Sanitation improvements and difficulties experienced as presented in plenary

| Reasons for sanitation improvements | Difficulties in sanitation improvements | |
|---|---|--|
| Technical experience available in the communities Availability of local resources i.e. bricks Hygiene and sanitation awareness Appropriate technology adaptation | ♣ Topographical variations of different project areas ♣ Existing bushes provide cover for open defecation ♣ Cost implications i.e. Materials ♣ Negative behaviors change ♣ Beliefs and taboos ♣ Low priority for sanitation needs ♣ Perceived no incentives for sanitation improvements | |

Summary of good sanitation situation

- Cleaner water sources
- Less or reduced cases of diarrhoel diseases
- Savings on medical expenses and care
- Cleaner environment
- Release of resources to other community priority projects
- Technology transfer and local empowerment
- Adapt a menu of low cost sanitation options

14.3.0 GROUP WORK 1: FAECAL ORAL ROUTE (Transmission Routes) EXERCISE-DIARRHOE DISEASE TRANSMISSION

Purpose

To help participants discover and analyze how Diarrheal diseases can

be spread through human hygiene practices and the environment.

Task

Use the drawings to try and create a diagram showing the different ways in which

faecal matter might come into contact with person's mouth.

Draw arrows between different drawings to show ways that this may happen.

Sample Group presentation

Routes

- 1. Faecal matter fly utensils, food, hands, mouth
- 2. Faecal matter, fly, food, hands, mouth
- 3. Faecal matter, hands, mouth
- 4. Faecal matter, contaminated water source, unprotected/not covered water storage facilities, drinking of contaminated water (mouth)

GROUP 1: FAECAL BARRIERS EXERCISE

Purpose

- ♦ Ways and means of controlling diarrhoeal diseases
- ♦ Ways of controlling faeces from contaminating food.
- Communities to identify faecal oral routes and giving suggestions on how to block the routes.

Task

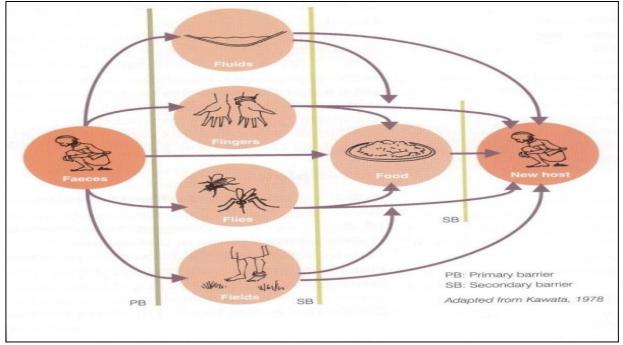
Identify the faecal barriers to the faecal oral transmission and place the barriers on a diagram.

Sample group presentation

List of barriers

- Disposal of faecal material to toilets
- ♦ Cooking food and serving hot
- ♦ Covering food
- ♦ Cleaning the environment
- Storing covered water with a drawing cup
- Washing hands
- ♦ Boiling water
- ♦ Cleaning toilets
- Drawing water from a well
- ♦ Putting up a latrine
- ♦ Boiling water

F-Diagram for disease transmission and control



PB-Primary barriers are latrines or sanitation facilities

SB-Secondary barriers are composed of hand washing with soap, safe water sources and others listed above.

GROUP1: BARRIER MATRIX EXERCISE

Purpose

To analyze how effective the blocks are and how easy or difficult they would be put into practice.

Task

Analyze the barriers in terms of their impact or effectiveness and how easy the could be implemented using the matrix provided

Sample presentation from the group

| BARRIER MATRIX | EASY TO DO | IN BETWEEN | DIFFICULT TO DO |
|-------------------------------|--|---|---|
| VERY EFFECTIVE HIGH IMPACT | Washing hands with soap after visiting latrinesUsing latrines | Wearing shoes when visiting latrines Maintenance of latrines | Constructing latrinesConstruction of wells |
| IN BETWEEN/MEDIUM IMPACT | ♠ Covering food | Use of clean safe water Constructing animal pens | Water storage |
| NOT EFFECTIVE/LOW IMPACT | ♠ Boiling water | - | . |

DAY THREE: THURSDAY, 10TH NOVEMBER, 2022

THEME: OPERATION & MAINTENANCE, CONCLUSION & ACTION PLANS

ACTIVITY 15: OPERATION AND MAINTENANCE OF SOLAR PUMPING SYSTEM

Purpose

To facilitate effective operation and maintenance of water points for sustainability and effective use of water points. Key issues that determine effective operation and maintenance are stated

- a) Ensuring the water point is effectively used and routine maintenance is carried out
- b) Promoting preventive maintenance to reduce maintenance costs
- c) Improved community financial management system to address replacement of spare parts and other key components

15.1.0 Key issues for operation and maintenance

| ISSUE | WHAT NEEDS TO BE DONE |
|--|---|
| INSTALLATION ISSUES | |
| 1. Exposed control box | The control box SHOULD be safely mounted onto a solid structure with all the wires insulated |
| 2. Exposed Wires | Electricity wires MUST be insulated at all times; wires should not be exposed. |
| 3. Mounting of solar panels | Ensure solar panels are properly secured on to an appropriate mounting frame with enough reinforcement to mitigate the risk of theft and strong winds blowing off panels. |
| 4. Unsecured Solar Panels | System components including solar panels, the pump and storage tanks MUST be safely secured by lockable fence. |
| OPERATION &MAINTENANCE | ISSUES |
| Regular cleaning of solar panels | Regularly clean the panels to remove accumulated dust and other debris like bird droppings. This will improve the rate of pumping. Cleaning should be done with soft sponge and water.DO NOT USE SOAP. Cleaning should be more regular during the dry season. |
| 2. Trimming of trees | Trees around the solar panels should be regularly trimmed to ensure that they do not give a shadow that blocks the panels from receiving maximum sunlight. |
| 3. Overflowing tank | If the tank does not have a valve to cut off water supply when it gets full, the system/community operator should shut down the pump as soon as the tank is full to prevent overflows. |
| 4. Clearing the area around the water point and solar panels | The compound where the solar panels and pump are located should be kept clean and free of litter and debris. Any tall grass should be trimmed to deter theft and vandalism. |
| FINANCIAL MANAGEMENT FO | R OPERATION & MAINTENANCE |
| Storing of collected money | Money that is collected SHOULD NOT be stored in a wallet or the treasurer's home. It is recommended that the money should be immediately transferred to the bank. This can be easily be done through mobile money banking or MPESA |
| Accountability and withdrawing of saved money | There should always be at least two signatories when withdrawing from the bank account. Approvals must be granted by the committee and documented in meeting minutes. |

ACTIVITY 16: SCHEDULED OPERATION AND MAINTENANCE OF SOLAR PUMPING SYSTEMS

Purpose

To determine activities to be undertaken periodically for operation and maintenance of the solar pumping system

16.1.0 Schedule of operation and maintenance of solar pumping system

| SCHEDULE | WHAT NEEDS TO BE DONE |
|-----------------------|--|
| 1. Daily Operation | The pump should not be switched OFF when not required Before switching ON the motor, care should be taken to prime the suction pipe by putting some water in the pipe through delivery side. The pump should never run dry. If the pump is not discharging any water after turning ON and the motor is running air may be trapped in the suction pipe through the delivery side. In this case, air can be released through the air trap valve in the pump. The valve should be tightened after removing the air. |
| REGULAR MAINTENANCE | |
| 2. Once in week | Cleaning the panels with water, sponge or soft cloth. Water can be splashed on the front side of the panels without problem. NOT ON THE BACKSIDE |
| 3. Once every 6months | Checking for any shadow on the panels, and trimming trees if necessary. |
| 4. Once a year | Checking and cleaning the foot -valve Checking the switches, fuse and connections. Inspecting the junction box on the back to make sure that the wiring is tight. |
| | Checking the wiring for breaks ,cracks insulation or any other damage by rodents or insects |

16.2.0 Dos and Don'ts for Solar Pumping system operation and maintenance

| DOs | | Don'ts | |
|-----|---|----------|--|
| 1. | The panels should be cleaned regularly | 1. | The pump should not be switched on and off too |
| 2. | The pump should be switched OFF at night or when water is not required | | often. After switching it off ,wait at least 15seconds before switching it on again |
| 3. | No shadow should fall on the solar panels during the day | 2. | The cover of the main junction box should not be left open |
| 4. | Care should be taken to avoid any leakages in the pump or pipes | 3. | The pump level should be changed once installed. There is a high risk of damage |
| 5. | The panels should be kept in the 0 degrees position in case of strong winds | 4. 5. | No loose wire should be left un-insulated The pump should not run totally overcast/cloudy day |
| 6. | Delivery and suction pipelines should be air- | 6. | The size of the pipes should not be reduced |
| | tight | 7. | The joints should not be left leaking |
| | | 8. | The panels should never be covered with any material (e.g.). It will reduce the output of the pump substantially. |
| | | 9. | If the solar pump stops working, do not try to repair. The authorized service unit should be informed immediately. |

ACTIVITY 17: OVERVIEW OF DRIP IRRIGATION SYSTEMS

Purpose

Participants to understand the rationale for drip irrigation for increased food production and productive use of water for improved livelihoods

17.1.0 Introduction to drip irrigation systems for productive use of water

Drip irrigation can reduce the water requirement by as much as 25to 50 percent compared to conventional irrigation. The main advantage of drip irrigation is that soil moisture remains relatively constant, and it is always available to the roots. In other watering methods, there is extreme fluctuation in water content, temperature and aeration of the soil. With drip irrigation, the water soaks immediately when the flow is adjusted correctly. There is neither flooding nor run-off, so water is not wasted. All of the water is accessible to the roots as it is applied near the root zone. Watering weed patches, walkways and other areas between plants rows is avoided. Water lost to evaporation is negligible and interference by wind is minimal. Fertilizers can be delivered directly to the plant roots through drip. This results in increased efficiency at low fertilizer rates.

Careful choice of the components means half the battle is won. Therefore, the following points should be taken into account when selecting a drip system.

- a) Ease of installation
- b) Ease of cleaning the emitters
- c) Durability
- d) Types of filters
- e) Possibility of flow control

The life of a drip system can be extended by proper design, proper filtering, avoiding puncture with tillage tools, mulching over plastic lateral drip lines to shield them from sunlight, and flushing and draining line periodically. The financial investment is reasonable small if you are willing to plan, assemble and install the system. Savings in water combined with increased yields and quality of vegetables and flowers more than pays for the cost of parts to maintain a drip system.

17.2.0 Selection, number and spacing of emitters

| PLANT | | FLOW RATE(lit per hr) | NUMBER OF EMITTERS | PLACEMENT OF EMITTERS |
|-------|----------------------------|--------------------------|--------------------|--------------------------------|
| 1. | Low shrubs (2-3ft) | 4 | 1 | At plant |
| 2. | Shrubs and trees(5-10ft) | 8 | 2-3 | 2feet from tree equally spaced |
| 3. | Shrubs and trees(10-20ft) | 8 | 3-4 | 3feet apart equally spaced |
| 4. | Shrubs and trees (20ft) | 8 | 6 or more | 4feet apart equally spaced |
| 5. | Ground Cover | 4 | 1 | At plant |
| 6. | Vegetables (Close space) | 2-4 | 1 | Every 16-24 inches |
| 7. | Vegetables(wide spaced) | 4-8 | One per plant | At plant |

17.3.0 Key issues for facilitating effective drip irrigation

| Key issues | Rationale |
|--|---|
| 1. Subsurface Drip | Subsurface drip irrigation technology is a variation of traditional drip irrigation where the tubing and emitters are buried beneath the soil surface, rather than laid on the ground or suspended from wires. The products being used today in subsurface drip irrigation come in three configuration: hard hose, drip tape and porous tubing. This method reduces maintenance ,injury and vandalism found with surface drip |
| 2. Local methods | Careful observation in your area can reveal other methods developed locally, which are suitable for the local needs and are often less costly. Some of these systems include trench farming, earthen pipes for field crops or diffusers for fruit crops. |
| 3. Managing system well | Whatever system you choose, maintenance is the key to success. Every field has different needs. Therefore, the flow rates and time should be adjusted by some experimentation. The hoses, faucets and water devices should be checked periodically for leaks and malfunctions to help avoid wastage. A little bit of regular maintenance can help not only in saving water but in also extending the life of the system. |
| Timing of irrigation turns | Irrigation should be scheduled when soil temperatures is moderate. In dry season is better to irrigate the field during the late afternoon or at night. It gives the plants sufficient time to absorb water before dry and desiccating weather prevails the next day. During cold /winter water should be applied during the morning hours, when the soil starts warming up. |
| 5. Critical growth stages | There are critical growth period of crops when water stress is most detrimental. For fruiting, the most critical growth stage regarding water deficit is at flowering and fruit formation. Moisture shortage at this stage may cause premature fall of flowers or young fruits, resulting in heavy yield reduction. For grains, grand growth and tillering stages are also critical. In terms of food production, the period of yield formation or enlargement of edible product (fruit, head, root, tuber etc) is critical for all vegetables, and is the most critical for non-fruiting crops. Moisture deficits at the enlargement stage normally result in a smaller edible portion because nutrient uptake and photosynthesis are impaired. On the contrary, over –irrigation during the ripening period may reduce fruit quality. Excess water during fruit –ripening reduces the sugar content and adversely affects the flavor of crops like tomatoes, sweet corn and melons. Moisture deficits at ripening time do not significantly reduce the yield of most crops. So the field should be irrigated with extreme caution at this time. |
| 6. Rotational Irrigation | With solar pumps, there is no need to worry about the number of hours of pumping, as it will not add to your electricity bill. Use this possibility to your advantage by careful planning. The usual practice in many areas id flooding the entire field in one day, and then letting it soak for 10days or so. With solar pump, It is not possible to irrigate a large field in a single day. The solar pump tends to give less output as compared to the much larger electric and diesel pumps used conventionally. On the other hand there is no additional costs in running the pump every single day. So by using a rotational irrigation pattern whereby only small patches (0.5-1 acre) are irrigated every day, you can cover about 5-10 acres over a 10—day period. By the time you have irrigated the last patch, you can start again with the first one. |
| 7. Water only as much as needed | Frequent light irrigation is often harmful. It wets only the surface soil to a depth of less than 1 inch. Most plant roots go much deeper. Light sprinkling only settles the dust and does little to alleviate drought. So, it is better to give plants a weekly soaking. When watering ,the soil should be allowed to become wet to a depth of 5 to 6inches. This type of watering allows moisture to penetrate into the soil area where roots can readily absorb it. A soil watered deeply retains moisture for several days. Excess irrigation can be even more harmful. Too much water in the soil causes oxygen deficiency, resulting in damage to the root system. Plant roots need oxygen to live. When a soil remains soggy, little oxygen in present in the soil. When this condition exists, roots die and no longer absorb water. Then leaves begin to show signs of insufficient water. These symptoms can be misleading. So proper care should be taken while determining the amount of water to be applied. The thump rule is to moisten the soil thoroughly at each watering, and then allow plants to extract most of the available water from the soil before watering again. |
| 8. Storage | Storage of water, especially for an orchard or nursery, can improve the efficiency to a great extent. It can enable you to irrigate according to your needs. It can also serve as excellent back up during a dry spell in monsoon. It allows irrigation during early morning or late evening when there is less evaporation, and the plants can make more efficient use of water. |
| 9. Agronomical Practices a) Mulch | Natural mulch consists of dead leaves, twigs, fallen branches and other plant debris, which accumulates on the earth's surface. Mulch insulates and protects soil from drying and hard barking effects caused by evaporation of water. It breaks the force of rain and irrigation water thereby preventing erosion, soil compaction and crusting. Mulched soils absorb water faster. It also helps to control weeds and works as a food for earthworms, microbes and other beneficial soil life by composting at the moist earth surface. Any plant material that is free of weed seed and diseases is suitable for mulch. Weed-free hay or straw, leaves, grass clippings, compost etc are all-great. Fresh grass clippings are fine for use around |

| | well-established plants, but they should be cured for a week or so before placing them around young seedlings. |
|---|--|
| b) Avoid over fertilization | The application of excess fertilizers increases the need for water and can lead to soil salinization. If the soil is over –fertilized frequently, especially with chemical fertilizers, the soil life can be greatly hampered, causing decrease in productivity. So fertilizers should be applied with caution. Fertilizers, which contain slow release, water insoluble forms nitrogen are preferable to normal fertilizers. |
| c) Use of organic manures and soil amendments | Organic manures and soil amendments help to build the soil organic matter, .one of the ingredients in soil quality. Soils rich organic in organic matter hold water well and offer a favorable environment in which the plant roots grow well. So organic manures should be a great way to improve soil productivity if other manures are not feasible. |
| d) Observe and manage the soil well | Maintaining the soil condition improves the water uptake to a great extent. The goal should be to provide the plant roots with moist, well-drained, and well aerated growing environment. Proper tillage and appropriate soil amendments, improve the structure and water holding capacity of the soil. Heavy clay soils have a high water holding capacity and will benefit from adding some type of coarse aggregate, like rice or wheat straw, which will improve the ability of water to move through the soil. Sandy soils, on the other hand, do not hold enough water and nutrients for plant use. Adding the fine – textured organic matter to these soils is often helpful. Careful observation can also help to determine the timing and the quantity of water applied. The symptoms seen on plants can be misleading. |
| e) Earn Water. Catch rainfall as much as possible | This is probably the best strategy in water management, for a country like ours, where we gain water during brief period and then used around the year. This is especially true when the ground water level is dropping steadily all over the country. Therefore, every effort should be made to catch the rainwater and store it to allow it to percolate so that it will recharge the ground water reservoir from which the pump takes out water. Field ponds, ditches around the field crops, earth dams in any stream flowing across the field can substantially improve the water storage. Even simple practices like tilling the soil across the slop and ploughing the field before and after showers can help the field to retain a lot more. |

ACTIVITY 18: VIDEO SHOWS ON WATER, SANITATION & PRODUCTIVE USE OF WATER MODELS

To complement the prior sessions, the workshop participants viewed 2 documentaries on water and sanitation. The first one, 'Prescriptions for Health' graphically depicts appalling water and sanitation practices (and standards) in the Philippines and Asia and provides useful tips on practices that prevent contamination and transmission of water related diseases.

The second documentary presented the productive use of water-depicting Kabuku community water project in Kiambu County and the positive impacts on community livelihoods by use of water for dairy production, vegetable production, poultry production etc. It highlights the key aspects of effective community participation and contribution for community water supply sustainability.

ACITIVITY 19: ACTION PLANS FOR COMMUNITY WATER POINTS AND WATER USER COMMITTEES

| ACTIVIT | Υ | WHERE | WHEN | HOW | WHO IS RESPONSIBLE |
|---------|---|-----------------------|--------------------------------------|--|--|
| 1 | Facilitate processing of grants of easement to allow community access to water points | All water point sites | 14th Nov.2022 To 28th Nov.2022 | Engage land owners &secure agreement with assistance of Assistant Chief | Chairperson of respective water points and Provincial Administration |
| ı | Develop Water User Association Constitution | All water point sites | 14th Nov.2022 To 28th Nov.2022 | Respective Water User Committee meetings | Chairperson of respective water point |
| | Management of Projects | All water point sites | 14th Nov.2022 To 28th Nov.2022 | Identify subcommittees for various project components | Chairperson of respective water point |
| | Improve financial management & record keeping | All water point sites | November,2022 | Water User Committees to procure all the financial management documents | Treasurer for respective water points |
| | Define roles and responsibilities | All water point sites | November 2022 to December,2022 | Water User Committee meetings | Chairperson of respective water point |
| | Rights of Water User Committees | All water point sites | November 2022 to December,2022 | Water User Committee meeting &community members | Chairperson of respective water point/Village elders |
| | Health and Sanitation | All water point sites | January,2023 | Identify hygiene &sanitation promoters | Chairperson of respective water point/Village elders |
| , | Establish tree nurseries at water points to promote agroforestry | All water point sites | January,2023 | Water User Committees liaise with Kenya Forest Service – Kibwezi Office | Chairperson of respective water point/Kenya Forest Service |

ACITIVITY 20: ACTION PLANS FOR SCHOOLS INVOLVED IN PROJECT IMPLEMENTATION

| ACTIVI | TY | WHERE | WHEN | HOW | WHO IS RESPONSIBLE |
|--------|---|--------------------------|---|---|--|
| 1. | Ensure the Ferro-cement water tank has water at all times to reduce maintenance | All target schools | 14th Nov.2022 To 28th Nov.2022 | Connecting to pipe water system and using water boozers to refill the water tanks | Respective school head teachers for target schools |
| 2. | Formation of 4K clubs to facilitate school food production | All target schools | 14th Nov.2022 To 28th Nov.2022 | Formation of 4K clubs | School Coordinators |
| 3. | Improve School sanitation | Miamba Primary school | Third Term- November/ December,2022 | Use of Effective Micro-organism (EM) technology for school latrines | KUMEA /School Coordinators for respective school |
| 4. | Facilitate operation of School drip irrigation for food production | All target schools | November/ December,2022 | School preparation of Land for vegetable production | School Coordinators for respective school |
| 5. | Ferro-cement Water tank maintenance | All target schools | Periodic | Form subcommittee to oversee tank maintenance KUMEA to prepare Operation &maintenance manuals | School Coordinators for respective school |
| 6. | Feedback of training outcomes | All target schools | 11th November, 2022 | Staff meeting | School Coordinators for respective school |
| 7. | Promote school agroforestry &prepare woodlot | All target schools | 14th Nov.2022 To 28th Nov.2022 | KFS/KEFRI to support schools with seedlings | Respective school heads/KUMEA/KEFRI/KFS |
| 8. | Promote vegetable production | All target schools | November 2022 January 2022 | Transplanting of vegetable seedlings | School Coordinators for respective school |
| 9. | Fencing of the school Vegetable production | All target schools | November 2022 January 2022 | Respective schools to fetch vegetable gardens to reduce encroachment | Respective school head teachers for target schools |

ACTIVITY 21: WORKSHOP EVALUATION FOR WATER RESOURCE MANAGEMENT TRAINING

| 1. Participatory Introductions and expectations 30 18 6 2. Workshop Norms 40 14 0 3. Workshop Objectives 38 14 2 4. Overview of National Water Policy& Water sector reforms 35 14 5 5. Community Based Management 28 25 1 6. Leadership styles and Qualities 29 20 5 7. Financial Management and Record Keeping 25 25 4 8. Gender and Development in Water and Sanitation 21 3 3 9. Group Development Dynamics 29 24 1 1 10. Overview of Water User Association constitution and formulation 27 22 5 5 11. Roles and responsibilities of Water User Association 28 22 4 4 12. Environmental health and sonitation 30 23 1 1 13. Code of ethics for WUA Leaders 25 26 3 3 24 0 14. Election of WUA Leaders 25 26 3 3 | ACTIVITY | WELL UNDERSTOOD | UNDERSTOOD | NOT UNDERSTOOD |
|---|--|-----------------|------------|----------------|
| 3. Workshop Objectives 38 14 2 4. Overview of National Water Policy& Water sector reforms 35 14 5 5. Community Based Annagement 28 25 1 6. Leadership styles and Qualities 29 20 5 7. Financial Management and Record Keeping 25 25 4 8. Gender and Development in Water and Sanitation 30 21 3 9. Group Development Dynamics 29 24 1 10. Overview of Water User Association constitution and formulation 27 22 5 11. Roles and responsibilities of Water User Association 28 22 4 12. Environmental health and sanitation 30 23 1 13. Code of ethics for WUA Leaders 26 27 1 14. Election of WUA Leaders 25 26 3 15. Overview of water point maintenance-Application "Challenges "Options & Solutions 28 21 5 16. Overview Drip Irrigation Water system-Application "Challenges "Options & Solutions 28 21 5 17. Documentary Videos- | | 30 | 18 | 6 |
| 4. Overview of National Water Policy& Water sector reforms 35 14 5 5. Community Based Adnagement 28 25 1 6. Leadership styles and Qualities 29 20 5 7. Financial Management and Record Keeping 25 25 4 8. Gender and Development in Water and Sanitation 30 21 3 9. Group Development Dynamics 29 24 1 10. Overview of Water User Association constitution and formulation 27 22 5 11. Roles and responsibilities of Water User Association 28 22 4 12. Environmental health and sanitation 30 23 1 13. Code of ethics for WUA Leaders 26 27 1 14. Election of WUA Leaders 25 26 3 15. Overview of water point maintenance-Application "Challenges, Options & Solutions 28 21 5 16. Overview Drip Irrigation Water system-Application "Challenges, Options & Solutions 28 21 5 17. Documentary Videos-Productive use of Water & Prescription for Health 30 24 0 | 2. Workshop Norms | 40 | 14 | 0 |
| Water Policy& Water sector reforms | 3. Workshop Objectives | 38 | 14 | 2 |
| 6. Leadership styles 29 20 5 and Qualities 7. Financial Management and Record Keeping 8. Gender and Development in Water and Sanitation 9. Group Development Dynamics 10. Overview of Water User Association constitution and formulation 11. Roles and responsibilities of Water User Association 28 22 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Water Policy& Water | 35 | 14 | 5 |
| and Qualities 7. Financial Management and Record Keeping 8. Gender and Development in Water and Sanitation 9. Group Development Dynamics 10. Overview of Water User Association constitution and formulation 11. Roles and responsibilities of Water User Association and sanitation 12. Environmental health and sanitation 13. Code of ethics for WUA Leaders 14. Election of WUA Leaders 15. Overview of water point maintenance-Application Challenges Options & Solutions 16. Overview Drip Irrigation Water system-Application Challenges, Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | • | 28 | 25 | 1 |
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| in Water and Sanitation 9. Group Development Dynamics 10. Overview of Water User Association constitution and formulation 11. Roles and responsibilities of Water User Association 12. Environmental health and sanitation 13. Code of ethics for WUA Leaders 14. Election of WUA Leaders 15. Overview of water point maintenance-Application Challenges, Options & Solutions 16. Overview Drip Irrigation Water system-Application Challenges, Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | _ | 25 | 25 | 4 |
| Dynamics 10. Overview of Water User Association constitution and formulation 11. Roles and responsibilities of Water User Association 12. Environmental health and sanitation 13. Code of ethics for WUA Leaders 14. Election of WUA Leaders 15. Overview of water point maintenance-Application ,Challenges , Options & Solutions 16. Overview Drip Irrigation Water system-Application ,Challenges , Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | • | 30 | 21 | 3 |
| Association constitution and formulation 11. Roles and responsibilities of Water User Association 12. Environmental health and sanitation 13. Code of ethics for WUA Leaders 14. Election of WUA Leaders 15. Overview of water point maintenance-Application ,Challenges , Options & Solutions 16. Overview Drip Irrigation Water system-Application ,Challenges , Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | | 29 | 24 | 1 |
| Water User Association 12. Environmental health and sanitation 13. Code of ethics for WUA Leaders 14. Election of WUA Leaders 15. Overview of water point maintenance-Application ,Challenges ,Options & Solutions 16. Overview Drip Irrigation Water system-Application ,Challenges ,Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | Association constitution and | 27 | 22 | 5 |
| sanitation 13. Code of ethics for WUA Leaders 14. Election of WUA Leaders 25 26 3 15. Overview of water point maintenance-Application ,Challenges , Options & Solutions 16. Overview Drip Irrigation Water system-Application ,Challenges , Options & Solutions 28 21 5 7 1 1 1 1 1 1 1 1 1 1 1 1 | | 28 | 22 | 4 |
| Leaders 14. Election of WUA Leaders 25 26 3 15. Overview of water point maintenance-Application Challenges, Options & Solutions 16. Overview Drip Irrigation Water system-Application Challenges, Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | | 30 | 23 | 1 |
| 15. Overview of water point maintenance-Application Challenges, Options & Solutions 16. Overview Drip Irrigation Water system-Application Challenges, Options & Solutions 17. Documentary Videos-Productive use of Water & Prescription for Health | | 26 | 27 | 1 |
| maintenance-Application ,Challenges , Options & Solutions 16. Overview Drip Irrigation Water system-Application ,Challenges , Options & Solutions 17. Documentary Videos- Productive use of Water & Prescription for Health | 14. Election of WUA Leaders | 25 | 26 | 3 |
| Water system-Application ,Challenges , Options & Solutions 17. Documentary Videos- Productive use of Water & Prescription for Health | maintenance-Application ,Challenges , Options & | 30 | 24 | 0 |
| Productive use of Water & Prescription for Health | Water system-Application ,Challenges , Options & | 28 | 21 | 5 |
| | Productive use of Water & | 30 | 24 | 0 |
| | | 26 | 26 | 2 |

ANNEX 1: WORKSHOP PHOTOS WATER RESOURCE MANAGEMENT TRAINING



1.0 Plenary sessions during the Water Resource Management Training



2.0 Facilitation of sessions by the Programs Coordinator



3.0 Plenary presentations



4.0 Group presentations



5.0 Group discussions on various issues during the training



6.0 Group discussion sessions

ANNEX 2: LIST OF PARTICIPANTS

| NAME OF PARTICIPANT | INSTITUTION/GROUP/SITE | ID/NO. |
|----------------------------|---------------------------|-----------|
| 1. JAMES NYAMAI | MISUUNI | 6278079 |
| 2. MARY K. MULI | KIWASUNI | 32802024 |
| 3. MARY KIOSI SILA | KYUMANI PRI. SCHOOL | 21360863 |
| 4. GETRUDE NZIOKA | KYUMANI PRI. SCHOOL | 22176070 |
| 5. DAVID KYALO | KYUMANI PRI. SCHOOL | 22965204 |
| 6. ANGELINE KITUVA | NEEMA YA MUNGU | 22399469 |
| 7. ARTHUR KIIO MUSYOKA | MIAMBA MITAMBONI | 11813589 |
| 8. TABITHA NDUMBU | KALIANI KASUNDUNI | 7781503 |
| 9. MARY N. WAMBA | WASYE UMWE | 13027881 |
| 10. JENIPHER MUNINI MUMO | WASYE UMWE | 11163043 |
| 11. PATRICIA SYOKAU JAMES | MIAMBA MITAMBONI | 044984 |
| 12. JACINTA MUMBUA MUKEKA | KYENI KYE NGINI | 9848824 |
| 13. ELIZABETH N. SILA | YIKIVUMBU PRI. SCHOOL | 21645725 |
| 14. PAULINA MEMBE MATHUKU | NEEMA YA MUNGU | 22549174 |
| 15. JOYCE M. JAMES | NGWATINIO YA MISUUNI | 23872998 |
| 16. MAGDALINE KATUMBI YULU | NGWATINIO YA MISUUNI | 5041941 |
| 17. PAUL KYD | WASWE UMWE | 33999766 |
| 18. KALUU SHADRACK | KATULANI PRI. SCHOOL | 27319258 |
| 19. PAUL MUNYALA | WIKWATYO | 4525366 |
| 20. MARY MWENDWA | NEEMA YA MUNGU | 28175411 |
| 21. MWANZIA KIMEU | KIKWASUNI | 9064355 |
| 22. MARY MBATHA | KASUNDUNI | 9064908 |
| 23. JUMA RODGERS | KYENI | 137027023 |
| 24. FREDRICK SAFARI | KYENI | 37055198 |
| 25. AGNES MUSYOKI | KASUNDUNI | 26924495 |
| 26. EUNICE MUENI MUTISYA | KASUNDUNI | 34185566 |
| 27. ESTHER MWANGANGI | KASUNDUNI | 11163206 |
| 28. AGNES MWEU | MIAMBA PRI. SCHOOL | 21710631 |
| 29. CATHERINE M.NYAMAI | SYOKOYA S.H. GROUP | 21717075 |
| 30. AGNES NZUKI | SYOKOYA S.H. GROUP | 6272015 |
| 31. FLORENCE MOKI | SYOKOYA S.H. GROUP | 1501200 |
| 32. JOSLINA TOM | SYOKOYA S.H. GROUP | 11163762 |
| 33. GETRUDE NZIOKA | MISUUNI | 22176070 |
| 34. JOYCE KILONZO | MISUUNI | |
| 35. MAGNDALENE KATUMBI | MISUUNI | |
| 36. REGINA TITO | NEEMA YA MUNGU | 5046074 |
| 37. JAMES LEVU | MISUUNI | |
| 38. JANET NDAMBUKI | WISE WOMEN | 35001279 |
| 39. MWENDE NZUKI | WISE WOMEN | 36610345 |
| 40. SALOME MULINGE | WISE WOMEN | 38504023 |
| 41. AGNES MUTUKU | WISE WOMEN | 7393770 |
| 42. REGINA KILUKYA | NEEMA YA MUNGU | 5046074 |
| 43. REBEKAH MUTHEU | WIKWATYO | 21442842 |
| 44. VERONICA M.KIAMBA | WIKWATYO | 114793535 |
| 45. RUTH MWANGALA | WIKWATYO | 7393651 |
| 46. DAVID WAITA | MIAMBA PRI. SCHOOL | 10095733 |
| 47. JULIUS MAONDO | YIKIVUMBU PRI. SCHOOL | 7809863 |
| 48. MWAKIO J. SHUMA | NDAUNI PRI. SCHOOL | 24378334 |
| 49. JANE MUEMA | NDAUNI PRI. SCHOOL | 22103565 |
| 50. VICTORIA MUNYAO | MIAMBA PRI. SCHOOL | 27127917 |
| 51. RUTH KIAMBALE | KEFRI | 32222429 |
| 52. REBECCA K. AMEYU | DEPARTMENT OF AGRICULTURE | 8479925 |
| 53. BENJAMIN MWINDI | KENYA FOREST SERVICE | 7000951 |
| 54. DESMOND KISILU | COMMUNITY RESOURCE PERSON | 10115765 |
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ANNEX .WORKSHOP AGENDA FOR WATER RESOURCE MANAGEMENT TRAINING

| | NUE: EAST VIEW HOTEL Y 1: INTRODUCTION AND COMMUNITY MANAGEMENT PROCESS |
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| | Participatory Introductions and expectations -(Everlynn) |
| | Workshop Norms -(Everlynn) |
| | Workshop Objectives-(Everlynn) |
| | Overview of National Water Policy (County Water Officer/Okaka) |
| | Community Based Management (Peter Okaka) |
| | Leadership styles and Qualities-(Okaka) |
| | Financial Management and Record Keeping (Peter Okaka) |
| | Gender and Development in Water and Sanitation (Facilitator) |
| DA | Y TWO: GROUP DEVELOPMENT, HYGIENE& SANITATION |
| | |
| | Group Development Dynamics (Peter Okaka) |
| | Overview of Water User Association Constitution and formulation(Peter Okaka) |
| | Roles and responsibilities of Water User Association(Okaka) |
| | Environmental health and sanitation(sub county Public Health Officer) |
| | Code of ethics for WUA Leaders(Okaka) |
| | Election of WUA Leaders(Mercy Okaka) |
| | Rights of WUA Members(Okaka) |
| DA | Y THREE: OPERATION & MAINTENANCE, CONCLUSION &ACTION PLANS |
| | . , |
| | Overview of water point maintenance-Application ,Challenges , Options & Solutions(Okaka/Water Officer) |
| | Overview Drip Irrigation Water system-Application ,Challenges , Options & Solutions(Everlynn/Agriculture officer) |
| | Documentary Videos-Productive use of Water & Prescription for Health(Peter Okaka) |

☐ Action Plans(All participants & facilitators)