

Water Users Association Training Manual



Water Development

March 2010

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Water Users' Association Training Manual

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FOREWORD

The Government of the Republic of Malawi realizes that access to clean and safe water and sanitation services has the potential to transform the lives of Malawians. Unsafe and unclean drinking water combined with lack of access to safe sanitation contribute to high morbidity and mortality rates among the vulnerable groups particularly women and children in Malawi. Reports indicate that diarrhoea diseases cause about fifty percent of deaths in children. People living with HIV and AIDS (PLWHAs) are also susceptible to a number of opportunistic infections resulting in deaths due to lack of access to clean water and safe sanitation services.

The National Water Policy emphasises the need to improve the coverage of equitable access to safe water and sanitation services through the provision of water supply and sanitation facilities, and in a transparent and accountable manner (National Water Policy, May 2005). This is also in line with the Malawi Growth and Development Strategy (MGDS).

However, equitable coverage of safe water and sanitation services can be achieved if water resources are well managed and facilities properly operated and maintained. It is against this background that the Government, through the Ministry of Irrigation and Water Development (MIWD) has adopted the concept of Water Users Associations (WUAs) to improve the management of water supply and sanitation systems in a sustainable manner particularly in the market centres and rural areas.

The Water Users Associations (WUAs) will have a legal mandate and be able to engage a local operator to run the scheme including managing funds. In order for the WUAs to effectively manage the water supply and sanitation systems, there is need for them to be equipped with proper knowledge and skills.

The Ministry has, therefore, developed the training modules contained in this manual to assist different users on how best they can develop the competencies of the water users organizations required to manage the water and sanitation systems efficiently and effectively in Malawi.

Finally, I would like to acknowledge the contributions and support rendered by all stakeholders at different levels in the development of this important WUA Training Manual. It is my sincere hope that they will provide continued support to this living document.

Hon. Richie Biswick Muheya MP

MINISTER OF IRRIGATION AND WATER DEVELOPMENT

PREFACE

Water is life. It sustains humanity and the entire ecosystem. Competing demands, however, continue growing including demand for domestic use especially water for drinking. Drinking safe and clean water prevents contraction of water and sanitation related diseases such as diarrhoea, cholera, dysentery, typhoid and polio.

Water and sanitation related diseases claim lives of many Malawians especially the vulnerable groups including women, children, the elderly and people living with HIV and AIDS (PLWHAs). The situation affects the country's priority agenda of economic growth and development as addressed by the Malawi Growth and Development Strategy (MGDS). To conserve, protect and manage the water resource and maintaining the facilities is a must in order for the present generation and the generation to come to equally benefit.

In the past, the government took full responsibility in the operation and management of the water supply facilities as a social service, which, nonetheless, proved not to be sustainable. Cases of catchment encroachment, cutting down of trees along the river basins, ploughing along the river banks, theft and vandalism of water facilities were rampant due to lack of community ownership and responsibility.

In line with the national Decentralisation Policy (1998) that emphasises empowerment of the community by transferring central responsibility to the local authorities, the Ministry of Irrigation and Water Development has developed the concept of Water Users Association (WUA). Water Users Associations are an improvement to the traditional system of forming voluntary water committees who assisted government in the operation and maintenance of the water supply systems. Under this arrangement, the WUAs will employ a qualified local operator to operate and maintain the scheme on their behalf that they will pay using revenue collected from the water users. The WUAs will also be registered within the laws of Malawi in order to acquire a legal status to safeguard the public property invested in their area.

The members of Water Users Association will be equipped with knowledge and skills on how to effectively manage their own water supply and sanitation systems.

This training manual aims at building strong water users organisations to effectively operate, maintain and manage the water supply and sanitation systems developed in the various market centres and surrounding villages sharing the same system to ensure sustainability.

In the manual, key competencies have been identified which will be addressed through ten modules and a number of related topics. Each topic provides guidelines to the facilitator on how to handle it in the facilitator's notes and sometimes additional information to beef up the sessions.

We are indebted to all those who contributed to the development of this important training manual which will be reviewed time and again in order to accommodate any changes in the evolving world we live in. Any substantive comments for improvement on the manual are welcome and should be directed to the secretary responsible for water development.

Sandram C. Y. Maweru SECRETARY FOR IRRIGATION AND WATER DEVELOPMENT

ACKNOWLEDGEMENT

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Further, the Ministry of Irrigation appreciates the support rendered by Africa Catalytic Growth Fund through the World Bank which enabled the production of this manual.

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INTRODUCTION

The vision "Water and Sanitation for All, Always" for the Water and Sanitation Sector in Malawi endeavours to ensure that every Malawian has equitable access to water and sanitation services for sustainable socio-economic development and enhancement of the natural ecosystems. These water supply and sanitation services should be provided at an affordable cost (National Water Policy, 2005).

In line with the vision, the Government of Malawi, through the Ministry of Irrigation and Water Development (i.e. the Ministry), is obliged to improve the efficiency and effectiveness of managing water supply and sanitation systems in order to ensure long-term sustainability and enjoyment of water and sanitation services by all Malawians. Indeed, one of the strategies for achieving this obligation is to let water users plan, implement, operate, maintain and manage their own water systems. Hence, the Ministry has adopted the concept of Water Users Associations (WUAs) as a responsible entity for operating and managing piped water and sanitation systems. WUAs are an improvement to the (traditional) Scheme Management Committees which were based on voluntary support and were also not commercially viable. Through its WUA Board, a WUA hires a water supply operator who is responsible for the management of a water system including collection of funds from consumer-charges thereby improving the level of water service to its members. The collected funds are used for operating and maintaining a water supply system thereby improving its level of service and sustaining the water supply infrastructure.

Members of the WUA Board should, therefore, be equipped with appropriate knowledge and skills in order for them to successfully discharge the foregoing responsibilities. Hence, this Water Users Association Manual is intended to facilitate training in all aspects of water supply operation and management to the WUA Board and other stakeholders. Modules that have constituted this Manual have evolved through rigorous inputs from members of the academia, community specialists as well as water and sanitation sector's practitioners.

ACRONYMS

AIDS - Acquired Immune Deficiency Syndrome

CBM - Community Based Management CDA - Community Development Assistant

CWP - Communal Water Point

CWPC - Community Water Point Committee
DCDO - District Community Development Officer

DCT - District Coordinating Team
DEC - District Executive Committee

DEHO - District Environmental Health Officer

DFO - District Forestry Officer

DPD - Director of Planning and Development

DPW - Director of Public Works
DWO - District Water Officer

EDO - Environmental District Officer
EWT - Extension Workers Team

FA - Field Assistant

FMP - Facility Management Plan HIV - Human Immunodeficiency Virus HSA - Health Surveillance Assistant

HTC - HIV and AIDS Testing and Counselling

LA - Local Authority
LUO - Local Utility Operator
M&E - Monitoring and Evaluation

MGDS Malawi Growth and Development Strategy
MoIWD - Ministry of Irrigation and Water Development

NGO - Non Governmental Organisation

NWDP - National Water Development Programme

O&M - Operation and Maintenance
PEA - Primary Education Advisor
PLWA - People Living with AIDS
Project Management Commit

PMC - Project Management Committee
VHWC - Village Health and Water Committee

WMA - Water Monitoring Assistant
WPC - Water Point Committee
WSS - Water Supply and Sanitation
WUA - Water Users Association

Module 1: Water Users Organisations Institutional Framework

Introduction

This module provides a general overview of the Water Users organisations in the management of piped water supply and sanitation systems including their organisational arrangement, roles and responsibilities of various stakeholders.

The module will enable the participants to make informed choices of the most appropriate organisational arrangement suitable for their scheme. They will also be able to determine the relevant stakeholders to collaborate with to ensure sustainable and reliable provision of water supply and sanitation services in the market centre and surrounding rural communities.

Objectives

By the end of the module, participants should be able to:

- 1. Demonstrate an understanding of water user's organisations
- 2. Demonstrate an understanding of the stakeholders and their interrelationship in water supply and sanitation management

Structure of Each Study Topic

The module contains three study topics. Each topic contains an introduction, learning objectives, content, summary, references, and facilitator's notes.

The facilitator's notes contain areas of emphasis and key words in the topic, the participants assumed prior knowledge, methodologies, estimated time allocation for the topic, resources and in some topics additional information for reference by the facilitator.

Skills to be acquired

By the end of the module, participants will acquire the following skill:

• Managing water supply and sanitation systems

Content

The module covers the following topics:

- Types of management organisations
- Water Users Association organizational arrangement
- Roles and responsibilities of stakeholders

Topic 1: Types of Management Organisations

Introduction

This topic will provide a general overview of the types of management organisations with special reference to Water Users Associations and Cooperatives. It will provide detailed information on the formation procedures of two common organisations.

The topic will also address the advantages and disadvantages of these two common types of organisations to guide water users to make informed decisions on the type of organisational arrangement suitable for their scheme.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Identify different types of management organisations
- 2. Define Association and Cooperative
- 3. Describe an Association and a Cooperative
- 4. List advantages and disadvantages of an association and a cooperative

Content

Types of Management Organisations

Activity 1.1

Step 1

Facilitator asks participants to brainstorm types of community management organisations that exist in their area.

Step 2

Facilitator consolidates the discussions and presents the common types of management organisations.

Types

The common types of management organisations found in the communities (some of which are registered while others are not) include:

- Clubs
- Associations
- Cooperatives
- Trusts
- Credit groups
- Business groups

The common types of management organisations for water and sanitation are as follows:

- Association
- Cooperative

Definition of an Association and a Cooperative

Activity 1.2

Step 1

Facilitator divides participants into buzz groups of three to define Association and Cooperative.

Step 2

Facilitator consolidates the responses and presents the definitions of Association and Cooperative.

Definition

An Association is a non profit making organisation formed and registered by the members to achieve a common felt need.

A Cooperative is a private business organisation formed and run by members through share holding to meet their economic and social needs.

Descriptions of an Association and a Cooperative

Activity 1.3

Step 1

In a lecturette facilitator describes an Association and a Cooperative.

Description of Association

- In Malawi, associations are non-profit making organisations formed for the benefit or welfare of the members.
- An association is registered by the government, which gives it legal status and can be registered as a trust or an association under Trustees Incorporation Act (1989) or Act of Parliament.

Description of a Cooperative

- A cooperative is registered by the government, which gives it legal status since its bylaws are derived from the Cooperative Societies Act No. 36.of 1998.
- The working capital for the cooperative is contributed by members through buying of shares.
- Members accept a share of the risks and benefits of the undertaking in which members actively participate.
- The executive body of a cooperative is called the Board of Directors, which may employ staff for the cooperative.

Advantages and Disadvantages of Associations and Cooperatives

Activity 1.4

Step 1

Facilitator divides participants into small groups to discuss the advantages and disadvantages of an association and a cooperative.

Step 2

Facilitator consolidates the discussions and describes the advantages and disadvantages of an Association and a Cooperative.

Advantages and Disadvantages

Tables 1.1 and 1.2 below show some of the advantages and disadvantages of an association and a cooperative.

Table 1.1: Advantages

Associations

Advantages:

- Lower cost of registration than that of a Cooperative.
- Less complex management.
- Builds group cohesion all members are treated equally.
- Members pay annual fee providing a sustainable source of funds for operation and maintenance.
- Any surplus is ploughed back to the association, allowing savings for future operation and maintenance.

Cooperatives

Advantages:

- Members work as a group.
- A Cooperative can make a profit and the profit goes to individual members.
- Pooling of resources such as materials, money and labour.
- Equitable distribution of profit.
- Enhances pooling of resources.

- The WUA Board is voluntary.
- Withdrawal of some members will not result in the dissolution of the Association.
- Members work as a group.

Table 1.2: Disadvantages

Associations	Cooperatives
• Income is not distributed amongst members.	• Complex.
 Common seal costs higher (may be prohibitive). 	• Members can withdraw money shares thus affecting the sustainability of the Cooperative.
	• Members buy shares thus restricting access by very poor members.
	• Individualism - there may be dominance by those members with greater shares.

Summary

The facilitator summarises the topic by inviting questions and clarifies them. He/she emphasises on the distinction between associations and cooperatives and points out that associations are recommended for the piped water supply and sanitation systems in Malawi.

References

Malawi Government (1998). *Cooperative Societies Act No. 36.* Ministry of Trade and Industry, Lilongwe. Malawi

Malawi Government (1998). Trustees Incorporation Act of 1989. Ministry of Trade and Industry. Lilongwe. Malawi

Areas of emphasis

- Definition of Association and Cooperative
- Description of Association and Cooperative
- Advantages and disadvantages of Association and Cooperative
- Common felt need

Key words

Association, cooperative, registration

Methodology

- Lecturette
- Brainstorming
- Group discussion
- Buzz group

Time required: 2 hours

Resources

Flip charts, A4 photocopying papers, marker pens, masking tape, handouts, file covers, shorthand note book, LCD projector, audio visual equipment.

Additional information

Table 1.2: Comparison of Associations and Cooperatives

No.	Criteria	Association	Cooperative
1	General Aim	• Under the "Trustees of Charities" must "benefit the inhabitants of Malawi"	Must "promote economic interests of its members"
2	Learning Objectives	 Main objective is for association to take care of common duties and give services; any surplus of income is ploughed back into the Association; 	 Main objective is for cooperative to make profit based upon a business plan; profits are distributed amongst members as a dividend
3	Registration	Registrar General, from the Ministry responsible for Justice	• Registrar of Cooperative Societies from the Ministry responsible for Commerce
4	Number of members	Not stipulated	• Not less than ten
5	Basic requirements for registration	 Application form signed by all trustees 2 copies of constitution & by-laws certified by Secretary & Chairperson Statutory declaration by each Trustee Impression of proposed common seal 	 Application form signed by at least 10 members 3 copies of constitution & by-laws certified by Secretary, Treasurer & Chairperson Cooperative member education
6	Constitution & By-laws	Required for registration	Required for registration
7	Cost of registration (year 2000)	• MK 200	• MK 250
8	Financial commitments	• No shares	• Share capital (any member not to exceed 20% of the cooperative capital)
		• Entrance fee required	• Entrance fee required
		Annual membership subscription	 Members annual contribution fee Purchase of the Cooperative Societies Act (MK600)
9	Common seal (year 2000)	• Cost of proposed seal (more than MK 100)	• Cost of rubber stamp (more than MK100)
		• Cost of engraved seal (more than MK 10,000)	• Cost of engraved seal (more than MK 10,000)

No.	Criteria	Association	Cooperative
10	Legal status	Legal entity	Legal entity
		 Perpetual succession 	 Perpetual succession
		 Capable of suing and being sued 	 Capable of suing and being sued
		 Hold property and water rights 	• Hold property and water rights
11	Election	• Every member is equal	• Equal regardless of share
12	Voting	• One member, one vote	• One member, one vote
13	Management	• Can be run by the members of the Association	• Requires experienced personnel to run complex business
14	Bookkeeper	Voluntary bookkeeping	Employment of independent bookkeeper (recommended)

Topic 2: Water Users Association Arrangement

Introduction

The main purpose of forming a Water Users Association is to empower water users to run their own piped water supply and sanitation system with full cost recovery to ensure sustainability. The process of establishing WUA promotes community ownership of the scheme, control over finances and other resources and ensures equitable distribution of the water supply and sanitation services to meet economic and social needs of the water users.

This topic will equip participants with knowledge of the organisational structure of WUA.

Learning Objectives

By the end of this topic, participants should be able to:

- 1. Describe procedure of WUA formation
- 2. Describe the structure of WUA
- 3. Explain the criteria for selecting members of WUA
- 4. Describe the rights and responsibilities of members

Content

Procedure of WUA Formation

Activity 2.1

Step 1

Facilitator asks participants to brainstorm how WUA is formed.

Step 2

Facilitator consolidates responses and presents the recommended procedure of WUA formation.

Procedure

- Awareness creation meetings.
- Election of members of General Assembly in each Village Development area to represent other water users in the area with at least one male and one female.
- Election of the WUA Board members among the elected members of the General Assembly consisting of an odd number, preferably a minimum of seven and maximum of thirteen with ability to understand simple English. In the WUA Board, it is recommended that there will be at least three independent members who are not allowed to vote. These members include the District Commissioner, District Water Development Officer and other eligible members such as the clergy (regardless of their religious affiliation); local leaders; retirees; or any person with influence in the community.

• Replacement of those elected in the WUA Board to ensure equal representation facilitated by extension team.

Structure of WUA

Activity 2.2

Step 1

Facilitator asks participants to buzz in groups the composition of WUA.

Step 2

Facilitator consolidates the discussion and presents the composition of WUA using WUA structure.

WUA Structure

The Water Users Association (WUA) is composed of mainly three supreme organs which are; General Assembly, WUA Board and Local Utility Operator (LUO) as a Secretariat. In the structure, Local Authorities assume the overall responsibility and water users as the primary stakeholders. In time of need, Audit and Water Tribunal become part of the structure. The whole structure of WUA is, therefore, given in diagram 1.

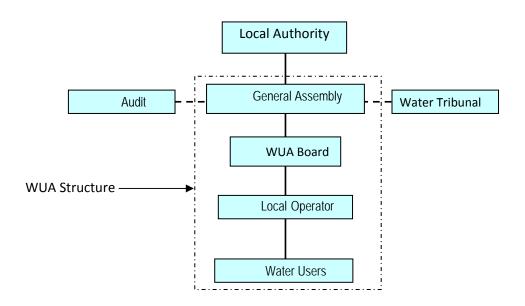


Diagram 1.1: The WUA structure

Criteria for Selection of Members of WUA

Activity 2.3

Step 1

Facilitator asks participants to brainstorm the criteria for selecting the members of WUA.

Step 2

Facilitator consolidates the responses and presents the criteria for selecting the members of WUA.

Criteria

The criteria for selecting persons into WUA membership are as follows:

- A person shall be a permanent resident and available in the area for meetings.
- A person shall be literate and able to understand simple English.

• A person shall be a committed volunteer and development conscious, with leadership skills and must be trustworthy.

There will be need for gender balance. Preferably, out of these, 15% will represent the youth (18 to 25 years of age) and 5% the physically challenged persons and people living with HIV and AIDS (PLWHAs), with some women in leadership positions.

Note:

The facilitator emphasises the need for registration of a Water Users Association as discussed in Topic 1 of this module.

Rights and responsibilities of members

Activity 2.4

Step 1

Facilitator divides participants into groups to discuss the rights and responsibilities of members of WUA.

Step 2

Facilitator consolidates the responses and presents the rights and responsibilities of members of WUA.

Rights and responsibilities

The rights and responsibilities of WUA members are as follows:

Rights

- Use your association.
- Voice out concerns.
- Understand your association.
- Pass by-laws.

Responsibilities

- Attend trainings and meetings.
- Participate in elections.
- Attend Annual General Meetings (AGM).
- Agree to resolutions passed.
- Follow association constitution.

Summary

Facilitator summarises the topic by asking participants if they have any questions and clarifies them. He/she emphasises on the key procedures followed during establishment of WUA, criteria for selecting members of WUA Board, and the rights and responsibilities of WUA members.

References

Government of Malawi. (2009) Guidelines for Establishment of Water Users Association in Malawi. Ministry of Irrigation and Water Development Lilongwe. Malawi.

Areas of emphasis

- Composition of WUA
- Selection criteria of General Assembly and WUA Board members
- Rights and responsibilities of WUA members

Key words

Board, operator, tribunal, users, rights, responsibilities, criteria.

Assumed prior knowledge

Participants must have a better understanding of types of management organisations contained in Topic 1 under module 1.

Methodology

- Brainstorming
- Buzz group
- Group discussion

Time required: 2 Hours

Resources

Flip charts, A4 photocopying papers, marker pens, masking tape, handouts, file covers, shorthand note book, LCD projector, audio visual equipment.

Topic 3: Roles and Responsibilities of WUA Organs and other Stakeholders

Introduction

In order to implement water and sanitation activities effectively, there is need for the supreme organs of WUA to use existing institutions and organisations at community, district, regional and national level. Identification of these stakeholders and an understanding of their respective roles and responsibilities will assist in the sustainable management of the schemes.

This topic provides an overview of the roles and responsibilities of relevant stakeholders in the operations of Water User's Association.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Describe roles of different organs of WUA and other stakeholders,
- 2. Describe other stakeholders in terms of their Strengths, Weaknesses, Opportunities, and Threats (SWOT).

Content

Roles of WUA organs and other Stakeholders

Activity 3.1

Step 1

Facilitator divides participants into small groups to discuss roles of WUA organs.

Step 2

Facilitator consolidates the responses and presents the roles of WUA organs.

Roles

Local Authorities

Local Authorities will be responsible for:

- Identifying, selecting and prioritising market centres and other rural areas for improved water supplies and sanitation services.
- Appraising investment proposals.
- Owning water supply assets on behalf of villages and market centres.

- Initiating the environmental and social screening process for sub-projects; and overseeing the implementation of the Environmental and Social Management Framework in liaison with the other stakeholders.
- Facilitating and overseeing all water supply and sanitation activities in the market centre and the surrounding rural community sharing the system.

General Assembly

The General Assembly will, among others, perform the following key roles:

- Reviewing and approving the reports of the WUA Board.
- Making a final decision regarding any major changes in policies.
- Adopting or amending articles of incorporation or by-laws of the Association.
- Exercising final authority in all matters affecting the Association.
- Disciplining the WUA Board.
- Electing and replacing trustees for a just cause and
- Reviewing and approving water tariffs.

WUA Board



Figure 1.1: WUA Board Meeting

The WUA Board will among others perform the following:

- Calling for the General Assembly meeting as required by the Constitution.
- Soliciting funds for the association.
- Submitting the financial statement of the association to the General Assembly.
- Entering into contracts and signing Memorandum of Understanding with different partners.
- Ensuring that resolutions of the General Assembly are complied with and implemented.
- Applying for water licence and lease on behalf of the Association and
- Hiring or firing local operator for a just cause.

Local Utility Operator

The LUO shall exercise all powers and accept all duties laid down in the constitution and, in particular, will perform the duties listed below on behalf of the WUA Board:

- Operating and maintaining water supply and sanitation facilities in market centres and rural areas, ensuring good quality and adequate quantity water at all times.
- Providing regular, accurate monitoring reports on performance to WUA Board.
- Assisting the Community Water Point Committees (CWPC) in the preparation of Facility Management Plan (FMP) and
- Preparing annual work plans and budgets and get approval from the WUA Board.

Water Users

The Water Users will participate in the management of WUA and other activities including:

- Identifying, prioritising and assessing community needs and ask for assistance.
- Electing members of WUA General Assembly/communal water points/local artisans.
- Choosing type of water facility and site.
- Providing communal labour and local material for construction of water facility.
- Agreeing on rules for use of new facility.
- Maintaining a clean environment on the facility.
- Participating in hygiene and sanitation promotion.
- Protecting catchment areas.
- · Protecting water and sanitation facilities against theft and vandalism and
- Monitoring and evaluating the water and sanitation system.

Analysis of stakeholders

Definition of SWOT

Activity 3.3

Step 1

The facilitator asks participants to brainstorm what they understand by the term SWOT.

Step 2:

Facilitator consolidates the responses and presents the meaning of SWOT and sample SWOT analysis.

Meaning

SWOT is an abbreviation that stands for:

Word What it means

Strength Areas where a stakeholder is good.

Weakness Areas where a stakeholder is not good.

Opportunity Availability of chances to do something better.

Threat Factors that can negatively affect performance.

An example of SWOT analysis is given below:

Table 1.3 SWOT analysis

Stakeholder Traditional Authority (TA)	• Commands respect • Has influence	Weaknesses • Bias • Inconsistence in decision making. • May be corrupted	Opportunities • Continuity of leadership • Can influence policy change	Threats • Chieftainship struggle
Politician (Member of Parliament)	Has influence to mobilise communities and resources	Favouring some sections of communities	Can lobby for financial support.	 Lack of continuity of development once out of power. May face opposition from some quarters

Activity 3.4

Step 1

Facilitator asks participants to brainstorm relevant stakeholders.

Step 2

Facilitator consolidates the responses and presents the list of relevant stakeholders.

Stakeholders	Examples
Primary Stakeholders	• Community
	 Traditional leaders
	 District Assembly
	 Religious leaders
	 Political leaders
	 Water Committees
	 Village Development Committees
	 Area Development Committees

Stakeholders	Examples
Secondary Stakeholders	 International/ Local NGOs
	 Extension Workers
	• Donors
	 Water Boards
	 Consultants
	 Local operators
	• Private Sector

Roles of Stakeholders

Activity 3.5

Step 1

Facilitator divides participants into groups to discuss roles of various stakeholders.

Step 2

Facilitator consolidates the responses and presents the roles of some stakeholders.

Communal Water Point Committee

A communal water point committee (CWPC) will, among others, be responsible for:

- Keeping records on money, meetings and water point maintenance.
- Protecting communal water point (CWP) against theft and vandalism.
- Monitoring construction of the CWP.
- Deciding on how funds for maintenance of communal water point should be raised/ managed.
- Promoting hygiene and sanitation practices in the community.
- Working hand in hand with Extension Workers Teams (EWTs) and Village Health and Water Committees (VHWC) in preparing a Facility Management Plan (FMP) and
- Mainstreaming issues of gender, environment, HIV and AIDS.

Local Artisans/Sanitation promoters

The local artisans will be entrusted with the following tasks:

- Constructing improved pit latrines such as eco-san latrines.
- Casting and installing different sanitation platforms such as san plats, san slabs.
- Promoting sanitary facilities such as improved pit latrines, hand-washing facilities, dish racks, soak ways and bath shelters and
- Carrying out awareness campaigns on hygiene practices and proper use of sanitation facilities in coordination with HSAs and other extension workers.

Summary

Facilitator summarises the topic by inviting questions from participants and clarifies them. He/she emphasises that for any other development work to succeed it is important to identify various stakeholders. Stakeholders provide skills, knowledge, expertise and finances, which can be used in the effective implementation of the project activities.

References

Government of Malawi. (2009). Guidelines for Establishment of Water User Association in Malawi. Ministry of Irrigation and Water Development, Lilongwe: Malawi

Facilitator's Notes

Areas of emphasis

- Identification of key stakeholders
- Analysis of roles of key stakeholders

Key words

Stakeholders, Roles, Responsibilities

Assumed prior knowledge

Participants must have covered procedures for WUA formation in Topic 2 under module 1.

Methodology

- Lecturette
- Group discussion
- Brainstorming

Time required: 2 hours

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

District Coordinating Team

District Coordinating Team (DCT) is the technical arm of the District Executive Committee (DEC) on matters of water and sanitation in the district. The membership of DCT includes the Director of Planning and Development (DPD), as Chairperson, the Director of Public Works (DPW), District Water Officer (DWO) as Secretary and as members, the District Environmental Health Officer (DEHO), District Community Development Officer (DCDO), Environmental District Officer (EDO) or District Forestry Officer (DFO), the Monitoring and Evaluation Officer (M&EO), NGO representative working in water and sanitation in the district. When need arises, implementing entity can co-opt other members into DCT.

Extension Worker Team

Extension Workers Team (EWT) is the technical arm of the Area Executive Committee (AEC) on matters of water and sanitation in the traditional authority area. The recommended membership of EWT include Water Monitoring Assistant (WMA), Health Surveillance Assistant (HSA), Community Development Assistant (CDA), Primary Education Advisor (PEA), Forestry Assistant (FA) and an NGO representative from among the NGOs working in the area on water and sanitation.

Ministry of Irrigation and Water Development

The MIWD will be responsible for managing all activities and providing technical support for the improvement of water supply and sanitation systems in market centres and surrounding communities using the same system. The MIWD may assist the Implementing Entities (IE) in the following areas:

- Carrying out pre-feasibility studies.
- Contracting/supervising consultants and contractors.
- Providing ongoing technical support to market centres and rural areas to sustain and expand facilities.
- Facilitating preparation of terms of reference for the investigations and development of surface and ground water sources.
- Facilitating the training of WUAs.
- Interpreting policies and strategies to different stakeholders in the implementation of water and sanitation activities.
- Assisting in planning, coordinating, monitoring and evaluation of water and sanitation systems in the market centres and rural piped water systems.
- Assisting in building capacity of different stakeholders, WUA Board public and private in piped water supply systems.

Water Users' Association Training Manual

- Assisting in the appraisal of market centre and rural piped water supply investment proposals.
- Assisting in refining implementation arrangements in, market centre and rural piped water supply programmes.
- Facilitating in hygiene education and sanitation promotion.
- Assisting in disseminating messages of HIV and AIDS prevention and mitigation.

Module 2: Group Organisation

Introduction

This module aims at introducing the concept of leadership, resolving any arising conflicts, mobilising communities and conducting meetings. It also presents essential elements in organisation structure. The module recognises the dynamism in human behaviour.

The module will equip the WUA members with knowledge and skills to provide sound leadership, management of conflicts and mobilisation of communities. The knowledge and skills acquired will help them carry out their responsibilities and functions effectively.

Objectives

By the end of this module, participants should be able to:

- 1. Demonstrate an understanding of effective leadership skills
- 2. Explain ways of managing a conflict
- 3. Demonstrate an understanding of proper conducting of meetings.

Structure of each Study Topic

This module has four topics. Each topic contains an introduction, learning objectives, content, summary, references, and facilitator's notes.

The facilitator's notes contain areas of emphasis, key words, participants' assumed prior knowledge, estimated time allocation for the topic, methodologies, resources, and additional information for reference by the facilitator in some cases.

Skills to be Acquired

It is expected that at the end of the module, participants should acquire the following skills:

- Providing good leadership
- Managing conflicts
- Mobilising communities

Content

This module contains the following topics:

- Leadership
- Conflict management and problem solving
- Community mobilisation and team building
- Conducting meetings

Topic 1: Leadership

Introduction

Leadership is an important aspect for facilitating a group process in order to achieve set objectives. There are different leadership styles that can be used to influence others to achieve the desired results in a given situation. Achievement of desired results will also depend on the qualities that an individual possesses to enable him/her influence, motivate and direct others.

In this topic, participants will be equipped with knowledge and skills to provide effective leadership in management of their water supply and sanitation facilities.

Learning Objectives

By the end of this topic participants will be able to:

- 1. Define leadership
- 2. Describe leadership styles
- 3. Explain advantages and disadvantages of different leadership styles
- 4. Describe qualities of a good leader

Content

Definition of Leadership

Activity 1.1

Step 1

Facilitator asks participants to brainstorm the definition of leadership.

Step 2

Facilitator consolidates the responses and defines leadership.

Definition

Leadership is the ability to influence others to take a certain course of action.

Leadership Styles

Activity 1.2

Step 1

Facilitator organises a role play to demonstrate leadership styles.

Step 2

Facilitator provides a summary of leadership styles.

Styles

There are different leadership styles that a leader can adopt. There is no one style that is perfect for the leader because leadership is situational. Therefore the style one adopts depends on the situation he/ she is in. The following are the types of leadership styles:

Dictatorial Leadership Style

This is also referred to as **Autocratic** or **Authoritarian** leadership. With this style, the leader makes decisions and imposes them on the group members. He or she allows little or no discussions or contributions from the rest of the group members.

Advantages

- Decisions are made promptly as no time is wasted in soliciting other members' views. This is most applicable in crisis situations.
- It is effective in producing results because subjects are forced.

Disadvantages

- The leader benefits more than the other members,
- It suppresses the group members from being creative,
- It limits growth of the members' confidence and skills.

Democratic Leadership Style

This is also referred to as participatory leadership. It ensures that all group members are involved in decision-making.

Advantages

- It promotes good relationships among group members,
- Group members are empowered to be mature and responsible,
- It promotes resourcefulness, creativity and responsibility,
- It enhances group members' participation in decision-making.

Disadvantages

A lot of time is spent on decision-making and implementation of activities is delayed.

Laissez-Faire Leadership Style

Laissez-faire is a French term which, when translated literary, means "Let people do what they wish". It is also referred to as passive leadership. There is complete freedom for individual or group decisions.

Advantages

It only satisfies the ego (personal) needs of the individual members and not for the organisation.

Disadvantages

- There is no sense of direction,
- Tasks are not accomplished efficiently,
- Existence of the group cannot be sustained and in most cases the results are chaotic,
- It does not lead to any achievement of intended goals or objectives of an organisation.

Qualities of a good Leader

Activity 1.3

Step 1

Facilitator asks participants to buzz in groups the qualities of a good leader.

Step 2

Facilitator consolidates the responses and presents qualities of a good leader.

Qualities

A good leader must possess qualities, which will enable him to influence, motivate, and direct others in order to achieve the intended goals. Some of the qualities include the following:

- A high sense of duty dedicated to duty and ready to work during odd hours.
- Being impartial exercise fairness and firmness to all group members, thus men, women, boys and girls, including the vulnerable and the marginalised.
- Love and interest for his / her work.
- Sound judgment and courageous.

- Initiative and high power of insight.
- Firmness, self control and ability to command discipline.
- Ability to get others to cooperate with him or her in performing a task(s).
- Be committed to the purpose of the association.
- Delegate duties freely.
- Be able to mix freely with other members of the association and the general public.

Summary

Facilitator summarises the main points covered in the topic, invites questions from the participants and clarifies the points, emphasizing on the definitions of leadership, different leadership styles, qualities of a good leader including the advantages and disadvantages of each style.

References

Bisika, J.J. (1994). School Organisation, administration and leadership: What head teachers should know. Domasi: Malawi Institute of Education.

Malawi Government (2002*Umodzi ndi Phindu: Manual for Training Entrepreneurs in Enterprise Development, Second Edition.* Ministry of Gender, Youth and Community Services. Lilongwe

Facilitator's Notes

Areas of emphasis

- Leadership qualities
- Leadership styles.

Key words

Leadership, Democratic, Dictatorial, Laissez-faire

Assumed prior knowledge

The participants must have previous knowledge and experience in working in groups.

Methodology

- Brainstorming
- Buzz group
- Role play

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 2: Conflict Management and Problem Solving

Introduction

Conflicts are part of human life. They arise when there are disagreements among people or between groups of people. Conflicts bring WUA Board positive and negative consequences for those involved and for others who are not part of the conflict. However, conflicts mostly result in sour relationships and in extreme cases in physical and emotional harm. To avoid the negative consequences that conflicts may bring, it is important to prevent them from occurring. Where they arise, they must be dealt with immediately.

In this topic, participants will be equipped with knowledge and skills that they will need to manage any conflicts, and solve problems that may arise in the running of their Water Users Association.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define a conflict
- 2. Identify causes of conflicts
- 3. Explain ways of resolving conflicts
- 4. List the consequences of not resolving conflicts
- 5. Explain steps in problem solving

Content.

Definitions of Conflict

Activity 2.1

Step 1

Facilitator asks participants to buzz in groups the definition of conflict.

Step 2

Facilitator consolidates the responses and defines conflict.

Definition

Conflict is a difference in interests or expectations between individuals or groups.

Causes of Conflicts

Activity 2.2

Step 1

Facilitator divides participants into groups to discuss the conflicts they experienced, their causes consequences and ways of resolving them.

Step 2

Facilitator consolidates the responses and provides common causes of conflicts, their consequences and ways to resolve them.

Causes

There are many factors that cause conflicts in an organisation and these may include:

- Misunderstanding on certain issues.
- Competition for resources.
- Poor communication.
- Clashing interests and personalities.
- Lack of openness (not being transparent).
- Lack of respect and love for one another.
- Lack of tolerance and patience.
- Jealousy.
- Dissatisfaction with leadership style.

Ways of Resolving Conflicts

There are several ways of resolving conflicts. These include:

- Negotiation
- Arbitration
- Mediation
- Guidance and counselling
- Tolerance.

Consequences of not resolving conflicts

If conflicts are left unresolved they may lead to serious consequences. These include:

- Demoralized community and committee members.
- Reduced cooperation among organisations members.
- Irresponsible behaviours like fighting.



Figure 2. 1: Consequences of unresolved conflicts

Problem Solving

Activity 2.3

Step 1

Facilitator divides participants into groups to discuss the steps for solving problems.

Step 2

Facilitator consolidates responses and presents problem solving steps.

Steps

The following steps are involved in the process of solving problems:

- Identify the problem.
- Define the problem (understand the problem state exactly what the problem is, for which a solution needs to be found).
- Identify the cause of the problem.
- Identify and consider all possible alternatives list all the possible outcomes, positives and negatives of each option, or each course of action that could be taken. Make sure you have correct and full information at this point.
- Consider personal and family values in relation to the option to be taken. Most of our values come from the training we receive at home. Others come from our friends and society. Consider whether each option is consistent with your personal and community values.
- Consider the impact of the option on other people. (getting organized) Our decisions affect many people who are important to us and think about the effect of each option on these people.
- Choose one alternative (planning what to do) After carefully weighing each option, choose the one that seems most appropriate based on your knowledge, values, morals, religious upbringing, present and future goals, and the impact of these options on the people.
- Implement the decision (carry out the activity) The selected course of action should be implemented as planned.
- Carry out an evaluation discuss thoroughly what has been done, achieved, lessons learnt and future plans.

Summary

Facilitator summarises the main points covered in the topic, emphasizing on factors that lead to conflicts, consequences of not resolving conflicts and ways of resolving them. It is also important that the facilitator summarises the steps involved in problem solving. Ask the participants questions to test their understanding of the topic.

References

Mhlanga, A.S. et al (2007). Life skills: Teacher's Guide for forms 1 and 2. Blantyre: Macmillan.

Mhlanga, A.S. et al (2002). Life skills Education: Student's Book 3 and 4. Blantyre: Macmillan.

Malawi Government (2002). *Umodzi ndi Phindu: Manual for Training Entrepreneurs in Enterprise Development, Second Edition* Lilongwe: Ministry of Gender, Youth and Community Services.

Facilitator's Notes

Areas of emphasis

The facilitator must put emphasis on:

- Factors leading to conflicts and ways of solving them
- The steps involved in problem solving

Key words

Conflict, management, problem, solving

Assumed prior knowledge

Participants have previously worked in groups or teams.

Methodology

- Buzz group
- Group discussion
- Brainstorming

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 3: Community Mobilisation and Team Building

Introduction

The most important aspect in achieving sustainable development is the way communities are mobilized to ensure change of mindset and sustainable social transformation. Community mobilisation involves enhancement of the transfer of a range of basic skills to the community members so as to stimulate the continuous involvement in the development process as well as improve contact between authorities and communities.

In this topic, participants will be equipped with knowledge and skills for community mobilisation and team building within a WUA.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define community mobilisation
- 2. Explain steps to follow in community mobilisation
- 3. Define team building
- 4. Explain how team building can be achieved

Content

Definition of Community Mobilisation

Activity 3.1

Step 1

Facilitator asks participants to brainstorm the definition of community mobilisation.

Step 2

Facilitator consolidates the responses and defines community mobilisation.

Definition

Community mobilisation is a deliberate process of involving community members, community groups, community leaders, and local institutions to organise themselves for collective action toward a common purpose.

Community Mobilisation Steps

Activity 3.2

Step 1

Facilitator asks participants to discuss in groups the steps they follow to mobilize communities.

Step 3

Facilitator consolidates responses and presents the steps in community mobilisation

Steps

Community mobilisation involves the following steps:

Steps	Description
Preparing for mobilisation	a) Have a clear purpose or goal.
	b) Know the community.
	c) Have requisite skills i.e. effective listening, interpersonal communication skills, facilitation and public speaking skills.
	d) Knowledge of basic issues to be discussed.
Starting community mobilization	a) Formalise community entry process by making a courtesy call to traditional leaders and other leaders to gain authority and consensus to work with the community.
	b) Raising awareness by briefing the authorities and communities about the mission, objectives, roles, responsibilities and expectations.
	c) Holding Public meetings to sensitise the communities on the mission, objectives, roles and responsibilities.
	d) Engaging communities into dialogue.
	e) Encouraging communities to choose own actions and ensure that the action chosen represents the final decision of the whole community and not only few individuals.
	f) Getting the communities organised for actions through among other things, forming committees.

Team Building

Activity 3.3

Step 1

Facilitator asks participants to watch a game related to team building:

- Identify five chairs and place them at one place.
- Ask one participant to move the chairs one by one to another place.
- Ask another participant to record the time taken to complete the process.
- Put the chairs back to their original position.
- Then ask five participants to take the chairs one each, to the same place as the first one.
- Ask another participant to record the time taken to complete the process.
- Compare the time taken in both instances.

Step 2

Facilitator asks participants what they have observed in the game, and what it has taught them about working as a team.

Step 3

Facilitator consolidates participants' responses and explains the importance of doing things together.

Step 4

Facilitator asks participants to brainstorm the meaning of team building

Step 5

Facilitator consolidates the responses and defines team building

Step 6

Facilitator explains how team building can be achieved.

Team Building

Team building is an organised effort with a purpose and focuses to improve group effectiveness.

How to Achieve Team Building

Team building can be achieved through the following ways:

- There should be common purpose and clear understanding of the team's objectives.
- There should be mutual support and helping each other to develop and grow individual strengths.
- Matching individuals to the team activities for which they are best suited.
- Identify enthusiastic, committed team members, who are involved and participative.
- Encourage feedback when the team has developed some cohesion, and stop criticism at the earliest possible time.

- Ensure that there is effective communication through regular meetings of the team without any disturbance.
- Respect for each other among team members as individuals and for the contribution each one makes to the team's performance.

Summary

Facilitator summarises the main points covered in the topic and invites questions and clarifies them. He/she emphasises on the steps involved in community mobilisation and ways of achieving team building. It is also important to stress on the importance of team building in managing a WUA.

References

Asiime & Kwemara (2007). Community Mobilisation Skills. Fountain Publishers, Kampala-Uganda.

H. Bisika, JJ (1994). School Organisation, Administration and Leadership: What Headteachers should know. Domasi: Malawi Institute of Education.

Government of Malawi (2005). *Community Mobilisation Guidelines for Extension Workers*. Ministry of Gender, Child Welfare and Community Services. Lilongwe

Government of Malawi (undated). Training Manual for Team Building and Management in Local Authorities. Lilongwe:

Facilitator's Notes

Areas of emphasis

- Community mobilisation
- Mobilisation steps
- Team Building
- Benefits of Team Building

Key words

Mobilisation, team, building

Assumed prior knowledge

Participants have previously been working in groups or teams and have experienced what it feels to work in a team.

Methodology

- Lecturette
- Game
- Brainstorming
- Group discussion

Time Required: 2 hours

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Additional information

Benefits of Teamwork

The benefits of teamwork include:

- Brings together complementary skills and experiences that by definition exceed those of any individual in the team.
- Enables joint development of goals and approaches.
- Promotes the establishment of communication links that support real-time problem solving and initiative.
- Provides a unique social dimension that enhances the economic and administrative aspects of work.

The likely results of effective teamwork include:

- Better solutions.
- Increased knowledge.
- Better use of resources.
- Increased productivity.
- Utilization of collective wisdom, knowledge, experience and information of a broad base of people.
- When people pool their skills, knowledge and talents they accomplish more.

Barriers to Team Building Efforts

- Differing outlooks, priorities, interests and judgments of team members Team members should concentrate on what is good for the project above their own interest areas. Failure to do so, will lead to severe problems in building an effective team.
- Role conflict Role conflicts are most likely to occur when there is no clarification on who does what within the organisation's team and between the team and external support team group. e.g. NGOs.
- Lack of clarity of the organisation's objectives If objectives are not explicit it becomes difficult and impossible to clearly define roles and responsibilities.
- Lack of team members' commitment.
- Poor communication Unless there is good communication among team members, between the project leader and team members and between the team and support groups, there cannot be an effective team building.

Topic 4: Conducting Meetings

Introduction

Meetings are vital aspects of running any organization. Meetings serve various purposes at all levels of management. It is expected that the committees will be involved in conducting and participating in regular meetings.

This topic therefore aims at introducing the participants to the concept and importance of conducting meetings. It will also equip them with knowledge and skills they will require in order to conduct meetings effectively.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define meeting
- 2. Explain the importance of meetings
- 3. Describe general conduct of meetings
- 4. Define Minutes
- 5. Explain the importance of taking minutes during meetings

Content

Definition of Meeting and its purpose

Activity 4.1

Step 1

Facilitator asks participants to define a meeting and explain if they have attended meetings before, what experiences they have from the meetings they attended. The following guiding questions can be used:

What kind of meeting did you attend?

What was the purpose of the meeting?

How were invited?

How was the meeting conducted?

What observations did you make out of the meeting?

Step 2

Facilitator consolidates the responses and explains the definition of a meeting and its purposes.

Definition

A meeting is a gathering of people to communicate and discuss issues concerning their activities.

Purpose of Meetings

Meetings are held for the following purposes:

- Updating each other on various issues taking place in the organization.
- Sorting out issues encountered.
- Planning for future activities and
- Reviewing progress of work.

Importance of Meetings

Activity 4.2

Step 1

Facilitator divides participants into groups to discuss the importance of meetings.

Step 2

Facilitator consolidates the responses in plenary and explains the importance of meetings.

Importance

Meetings are important for the following reasons:

- They are a means of communication.
- They give other members a chance to participate in decision making and working out implementation procedures.
- They promote unity and cohesion of group members.
- They provide immediate checks on members' reaction to proposals and
- They help to get other members' opinions.

Conduct of Meetings

Activity 4.3

Step 1

Facilitator asks participants to role play by following the instructions as below:

Identify seven (7) people to prepare the role play.

The role play should indicate a chairperson facilitating a meeting that has no agenda where she/he looks not knowing what to do and there are no records of the previous meeting. Besides, there is no one to take down minutes of the meeting and some of the members conduct themselves in unbecoming manner.

Step 2

Facilitator asks participants to discuss the role play using the following guiding questions:

What were your observations?

Does this happen during meetings?

What can be done to improve the meeting procedure?

Step 3

Facilitator consolidates the responses from participants and explains ways of conducting meeting proceedings.

Step 4

Ask participants to brainstorm how regularly meetings can be conducted.

Step 5

Facilitator consolidates the responses from participants and concludes on the frequency of conducting meetings.

Conduct

The chairperson should make sure that the following are available before conducting a meeting:

Secretary – The secretary for the meeting should be known in advance so that he/she should be prepared.

Quorum – Usually it is acceptable that if two thirds of the members, including the chairperson, are present the meeting can take place.

Meeting Agenda – an outline of what is to be discussed and how it is to be done. Members may contribute to the agenda. The agenda should allow for any other business (AOB) so that members may bring up other issues. The agenda should be known at least three to four days before the meeting to allow all members to get prepared

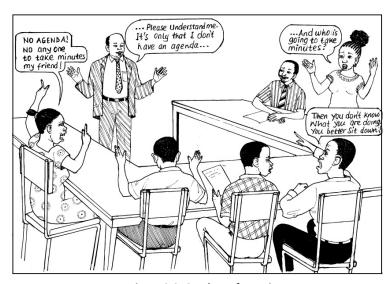


Figure 2.2: Conduct of Meetings

Definition of Minutes

Activity 4.4

Step 1

Facilitator asks participants to buzz in groups the definition of minutes.

Step 2

Facilitator consolidates the responses and defines minutes.

Definition

Minutes are recordings of the proceedings of a meeting.

Contents of minutes

Activity 4.5

Step 1

Facilitator divides participants into groups to discuss contents of minutes

Step 2

Facilitator consolidates the responses and presents what is contained in minutes.

Contents

Minutes contain the following items:

- Date and place of the meeting.
- Members present and their contact details.
- Members absent.
- Apologies.
- Chairperson's remarks.
- Main points of the deliberations, including responsible person to act on the point discussed.
- Closing remarks.
- Agreed date of the next meeting and
- Signatures of chairperson and secretary.

Importance of Minutes

Activity 4.6

Step 1

Facilitator asks participants to brainstorm the importance of minutes.

Step 2

Facilitator consolidates the responses and explains the importance of minutes.

Importance

Minutes are important for the following reasons:

- They are reference materials and records on what was discussed during the previous meeting.
- They are a guide for proper decision making.
- They form a basis for the next meeting and
- They provide information for management to follow up.

Summary

Facilitator summarises the main points covered in the topic and emphasises on ways of conducting meetings and importance of taking minutes during meetings. It should also be noted that the conduct of the members during the meeting has an impact on the results of the meeting.

References

Bisika, J.J. (1994). School organisation, Administration and Leadership: What Head Teachers should know. Malawi Institute of Education. Domasi

Malawi Government (2005). Trainer's Guide for Community Project Management Training. MASAF. Lilongwe:

Facilitator's Notes

Areas of emphasis

The facilitator must emphasize on:

- Importance of meetings
- Importance of having an agenda for the meeting
- Importance of minutes

Key words

Meeting, agenda, minutes, quorum

Assumed prior knowledge

Participants must have attended meetings.

Methodology

- Role play
- Brainstorming
- Group discussion

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Module 3: | Legal and Institutional Framework

Introduction

This module introduces members of Water Users Association (WUA) to the existing policies and laws that govern the management of water resources. Since the WUA may be registered, it is important for its members to be able to interpret legal issues and provide input into drafting of any relevant legal documents for their organisation. In addition, by-laws are required for the smooth operation of the system.

The module therefore will help members of WUA to run the organisation properly within the legal framework.

Objectives

By the end of this module, participants should be able to:

- 1. Explain the existing policies and laws relevant to management of water resources, sanitation and hygiene
- 2. Facilitate formulation of By-Laws

Structure of each Study Topic

This module has two topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participants' assumed prior knowledge, estimated time allocation for the topic, methodologies, learning resources and additional information for reference by the facilitator.

Skills to be Acquired

It is expected that by the end of the module, participants should be able to acquire the following skills:

- Interpreting legal documents
- Drafting By-Laws

Content

This module contains the following topics:

- Policies and laws
- By-Laws

Introduction

Policies and laws are important to govern any registered organisation such as WUA in order to attain a common goal within the regulatory framework.

This topic will equip members of WUA with knowledge and skills about policies and laws.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define Policy
- 2. Define Law
- 3. Identify existing Policies, Laws and Acts related to water and sanitation

Content

Definition of Policy

Activity 1.1

Step 1

Facilitator asks participants to brainstorm the definition of Policy.

Step 2

Facilitator summarises the discussion and defines Policy.

Definition

A policy is an instrument for guiding the process of management in order to achieve desired end result.

Definition of Law

Activity 1.2

Step 1

Facilitator asks participants to buzz in groups the definition of Law.

Step 2

Facilitator summarises the discussion and defines Law.

Definition

A law is a legal basis for implementing policies whereby citizens are expected to undertake acceptable practices and also restricts a citizen from bad practices.

Existing Policies and Laws/Acts Related to Water and Sanitation

Activity 1.3

Step 1

Facilitator divides participants into small groups to discuss the following:

- Local policies that govern their community.
- Ways in which they enforce their policies.
- Policies and laws which they know.

Step 2

Facilitator consolidates the responses and presents Policies and Laws related to water and sanitation.

Policies

National Water Policy (2005)

The 2005 National Water Policy (NWP) places primary emphasis on water resources development and management.

The overall policy objective is to ensure that all persons have convenient access to sufficient quantities of water of acceptable quality and the associated water-related public health and sanitation services at any time and within convenient distance. It also places much emphasis on:

- Promoting the empowerment of user communities to own, manage and invest in water resources development.
- Promoting public and private sector participation in water resources management, development, supply and conservation.

National Sanitation Policy (2008)

The overall policy objective is to achieve universal access to improved sanitation, and safe hygiene practices while ensuring sustainable environmental management for the economic growth.

The policy goal in the rural areas is to achieve universal access to improved sanitation and exposure to safe hygiene practices, and properly manage waste to protect the environment. Its objective is to increase access to improved sanitation, promote safe hygiene practices, proper waste disposal and recycling of wastes in rural areas.

National Decentralisation Policy (1998)

The objectives of the National Decentralisation Policy (1998) devolves administration and political authority to the district level, integrates governmental agencies at the district and local levels into one administrative unit, through the process of institutional integration, manpower absorption, composite budgeting and provision of funds for the decentralized services.

Existing Laws/Acts Related to Water Sector

The following are some of the enabling legislations for the implementation of the policies.

Water Resources Act (1969)

Under the Water Resources Act of Malawi, ownership of all public water in Malawi is vested in the President, and the control of public water is vested in the Minister responsible for water affairs.

It is necessary for anyone intending to divert, dam or store public water to obtain a water right. The right stipulates source, quantity, and time period.

Water Rights can be conferred on Water Users Associations if they make an application backed up by full details of land ownership.

Environment Management Act (1998)

The Environment Management Act provides for the protection and management of the environment and the conservation and sustainable utilization of natural resources.

The Minister responsible for Environmental Affairs has power to require an Environmental Impact Assessment (EIA) to be carried out before a project is implemented.

Lands Act (1998)

In Malawi, the Lands Act classifies land into three tenure categories, Public land, Private land and Customary land.

Local Government Act (1998)

Local Government Act establishes Assemblies, various committees and lists the function of the assembly as follows:

- To make policy and decisions on local governance and development for the local government.
- To consolidate and promote local democratic institutions and democratic participation.
- To promote infrastructural and economic development through the formulation, approval and execution of district development plans.
- To mobilize resources within the local government for governance and development.
- To maintain peace and security in the local government area in conjunction with Malawi Police Force.
- To make bye-laws for the good governance of local government area.

Summary

The facilitator summarises the main points contained in the topic and invites questions for clarification. He/she emphasises on the existing policies and laws that govern the management of water resources to enable the WUA manage the scheme within the legal framework. An understanding of the existing policies and laws will enable the WUA also prepare credible constitution and by-laws.

References

Malawi Government (2005). National Water Policy. Malawi Government. Lilongwe

Malawi Government (2008). National Sanitation Policy. Malawi Government. Lilongwe

Malawi Government (1998). National Decentralisation Policy. Malawi Government. Lilongwe

Malawi Government (1969). Water Resources Act. Malawi Government. Lilongwe

Malawi Government (1998). Environment Management Act. Malawi Government. Lilongwe

Malawi Government (1998). Local Government Act (1998), Malawi Government. Lilongwe

Malawi Government (1998). Lands Act. Malawi Government. Lilongwe

Facilitator's Notes

Areas of emphasis

- Importance of policy and laws in an organisation
- Existing policies, laws and regulatory frameworks related to water and sanitation in Malawi

Key words

Policy, law, by-law, regulatory framework

Methodology

- Brainstorming
- Buzz group
- Group discussion

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 2: By-Laws

Introduction

By-laws are necessary for the proper running of any organisation. This topic will equip the members of WUA with knowledge and skills on how to develop meaningful By-Laws.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define By-Laws
- 2. State the outline of By-Laws
- 3. Explain how to prepare By-Laws
- 4. Explain the importance of By-Laws

Content

Definition of By-Laws

Activity 2.1

Step 1

Facilitator asks participants to buzz in groups the definition of By-Laws.

Step 2

Facilitator consolidates the responses and defines By-Laws.

Definition

By-Laws are regulations governing the activities of an organisation.

Outline of By-Laws (Constitution)

Activity 2.2

In a lecturette, the facilitator explains the outline of the constitution.

Outline

- Name of Association and its objectives
- Membership
- Finances
- Meetings
- General provisions
- Functions and roles of WUA and its sub-committees
- Operation and Maintenance

- Duties of sub-committees and office bearers
- Rules and Regulations

Preparation of By-Laws

Activity 2.3

In a lecturette, the facilitator explains the processes involved in the preparation of By-Laws.

Preparation of By-laws

During preparation of By-laws WUAs can take into account the following factors:

- Set up a drafting committee to prepare the By-Laws.
- By-Laws can be drafted in the local language. However, they will need to be translated into English for application to the Ministry of Justice.
- Each section should be presented to the water users for explanation and comments.
- The WUA Board presents the draft By-laws to the General Assembly for approval.
- Application for registration to the Ministry of Justice.

Importance of By-Laws

Activity 2.4

Step 1:

Facilitator divides participants into groups to discuss the importance of By-Laws.

Step 2:

Facilitator consolidates the responses and presents the importance of By-Laws.

Importance

- Protects the Association and its activities.
- Guides Association in day to day activities.
- Promotes transparency, efficiency, quality and effectiveness.
- Maintain discipline within the Association.
- Promotes unity.
- Promotes group action.
- Encourages democratic principles.

Summary

Facilitator summarises the main points contained in the topic and invites questions for clarification. He / She emphasises on the importance of by-laws which are to protect, guide, promote transparency and maintain discipline of the association among others. Emphasis should

also be made on the guidelines for the formulation of the By-Laws since WUA members will be required to formulate their own By-Laws.

References

Malawi Government (2002*Umodzi ndi Phindu: Manual for Training Entrepreneurs in Enterprise Development, Second Edition.* Ministry of Gender, Youth and Community Services. Lilongwe.

Facilitator's Notes

Areas of emphasis

- Definition of By-Laws
- Outline of By-Laws
- Process of preparing By-Laws
- Importance of By-Laws

Key words

By-Laws,

Assumed prior knowledge

Participants must have better understanding of policies and legal framework.

Methodology

- Group discussion
- Brainstorming
- Buzz group

Time required: 1 hour 30 Minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Module 4: Sanitation and Hygiene Promotion

Introduction

This module aims at imparting knowledge and skills to participants on how they can promote sanitation and hygiene in the scheme to achieve good health. It will enable them to understand water and sanitation related diseases, how they are transmitted, controlled or prevented using participatory techniques.

Objectives

By the end of this module, participants should be able to:

- 1. Explain ways of promoting sanitation and hygiene
- 2. Demonstrate an understanding of transmission and prevention of water and sanitation related diseases

Structure of each Study Topic

This module has two topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participants' assumed prior knowledge, estimated time allocation for the topic, methodologies and learning resources.

Skills to be Acquired

It is expected that by the end of the module, participants will acquire skills in:

- Promoting sanitation and hygiene practices
- Facilitating prevention of water and sanitation related diseases

Content

This module contains the following topics:

- Sanitation
- Hygiene promotion

Topic 1: Sanitation

Introduction

Provision of sanitary facilities is a key to prevention of water and sanitation related diseases. It is important that any WUA ensures availability of these facilities amongst beneficiary households.

This topic aims at equipping participants with knowledge and skills on sanitation including technological options used for sanitation.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define sanitation
- 2. Describe areas of focus for sanitation
- 3. Describe the sanitation ladder
- 4. Explain transmission routes
- 5. Explain means of blocking transmission routes

Content

Definition of Sanitation

Activity 1.1

Step 1

Facilitator asks participants to brainstorm the definition of sanitation.

Step 2

Facilitator consolidates responses and presents the definition of sanitation.

Definition

Sanitation is the provision and availability of facilities that promote good hygiene practices.

Areas of Focus in Sanitation

Activity: 1.2

Step 1

Facilitator divides participants into groups to discuss the areas of focus in sanitation.

Step 2

Facilitator consolidates the responses and presents areas of focus.

Areas of Focus

There are several key areas of focus in sanitation but the following are common:

Area of Focus	Description
Water Point Sanitation	Examples of safe water points include borehole, protected shallow well, tap, and protected spring. Adequate sanitation at water points entails availability of apron, drainage channels, washing slab, soak-away pit, fence and livestock trough.
Household Sanitation	Sanitation at a household level includes the availability of improved pit latrine, pour flash toilet, bathroom, hand washing facility, refuse pits and compost heaps.
Village Sanitation	Good village must have safe water points, graveyard, toilets, refuse pits, compost heaps, drainage channels, water catchment management system, animal khola.
School Sanitation	Schools must have toilets, urinals, hand washing facilities, refuse pits, compost heaps, water points, drainage channels.
Market Sanitation:	Markets must have improved sanitation such as improved pit latrines/flush toilets, urinals, hand washing facilities, waterborne sewage system, skips, drainage channels, dustbins, landfill sites and safe water point.

Area of Focus	Description
Health Facility Sanitation	A health facility must have improved toilets, urinals, hand washing facilities, incinerators, pour flush toilets, sewage systems, drainage channels, refuse pit, safe water points, mortuary.
Business and other public premises sanitation	Business and other public premises must have improved toilets, urinals (optional), hand washing facilities, institutional sewerage systems, drainage channels, dust bins, skips, landfill sites and safe water points.

Sanitation Ladder

Activity: 1.3

Step 1

Facilitator asks participants to buzz in groups the sanitation ladder using picture codes.

Step 2

Facilitator consolidates the responses and explains the sanitation ladder.

The Sanitation Ladder

Sanitation Ladder is a tool used to trigger communities to assess themselves where they are and where they want to be in respect of improved sanitation. The ladder shows progression towards implementing sanitation interventions to attain open defection free status.

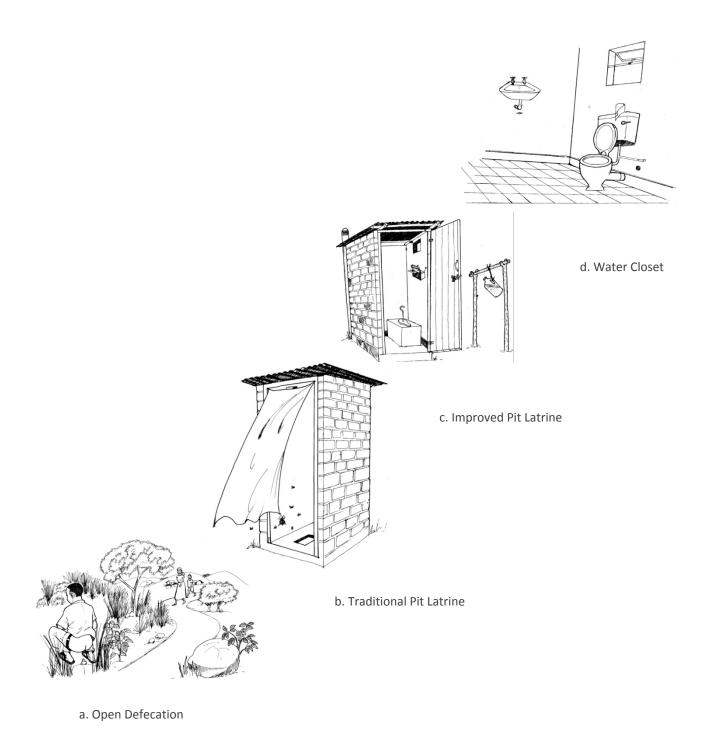


Figure 4.1: The sanitation ladder

Transmission Route

Activity 1.4

Step 1

Facilitator divides participants into small groups to discuss how faecal oral diseases are transmitted.

Step 2

Facilitator consolidates the responses and presents transmission routes.

Routes

Based on the F-diagram (fingers, flies, fields and fluids) in diagram 1.1 below, this activity uses a set of posters depicting the different steps or carriers of faecal – oral contamination, to help communities analyze and organize their knowledge of diarrhoeal diseases transmission. This activity also provides a framework for assimilating new ideas and concepts about faecal – oral contamination.

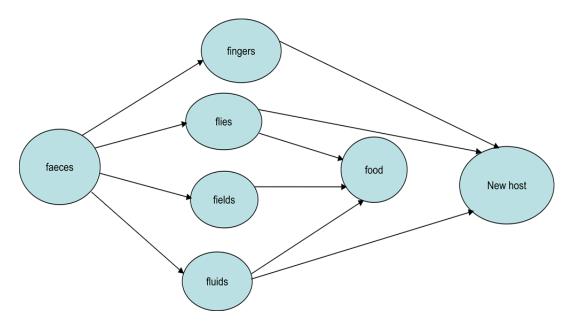


Diagram 1.1: Transmission routes

Blocking the Routes

Activity 1.5

Step 1

Facilitator asks participants to brainstorm how to block the faecal oral transmission routes.

Step 2

Facilitator consolidates the responses and presents blocking routes.

Means

From the transmission routes exercise described in diagram 1.1 above, the transmission of faecal oral route can be blocked through provision/availability of latrines and hand washing shown by vertical lines in figure 1.2 below.

Blocking routes

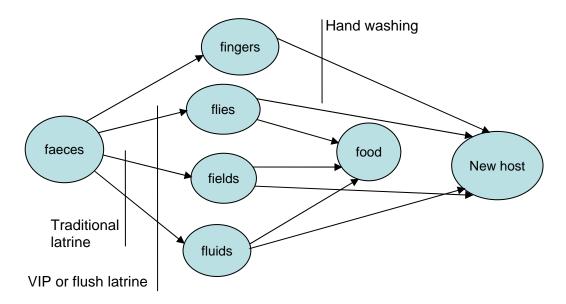


Diagram 1. 2: Blocking routes

Summary

The facilitator summarises the main points in the topic, invites questions for clarification. He/she emphasises on the definition of sanitation, areas of focus in Malawi which are water point sanitation, village sanitation, household sanitation, school sanitation, market sanitation, health facility sanitation and business and other public premises sanitation. Emphasis should also be made on sanitation ladder, transmission and blocking routes.

References

Ministry of Health (November 2007). *Draft PHAST Training Manual for Extension workers:* Ministry of Health. Lilongwe

Facilitator's Notes

Areas of emphasis

- Definition of sanitation
- Areas of focus in sanitation
- Sanitation ladder
- Transmission routes
- · Blocking routes

Key words

Sanitation, transmission, ladder, blocking

Methodology

- Lecturette
- Brainstorming
- Buzz group
- Picture codes
- Group discussion

Time required: 1 hour 30 minutes

Resources

Flip charts, marker pens, hand-outs, masking tapes, A4 photocopying paper, writing pens, file covers, shorthand note book, LCD Projector.

Topic 2: Hygiene Promotion

Introduction

Water is a very important resource, but can harbour diseases if sanitation and proper hygiene practices are not observed. Hygiene is a key element for the control and prevention of water and sanitation related diseases.

This topic aims at equipping participants with knowledge and skills on hygiene promotion in the communities and further highlights key water and sanitation related diseases.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define hygiene
- 2. List down areas of focus in hygiene
- 3. Describe importance of safe hygiene practices
- 4. List water and sanitation related diseases
- 5. Explain the methods of preventing water and sanitation related diseases

Content

Definition of hygiene

Activity 2.1

Step 1

The facilitator asks participants to buzz in small groups the definition of hygiene.

Step 2

Facilitator consolidates responses and defines hygiene.

Definition

Hygiene is the consistent proper use of sanitary facilities in order to prevent diseases.

Areas of focus in hygiene

Activity 2.2

Step 1

Facilitator divides participants into groups to discuss areas of focus in hygiene.

Step 2

Facilitator consolidates the responses and presents areas of focus in hygiene.

Areas of Focus

The following are some of the area of focus in hygiene:

- Hand washing with soap at four critical times: after visiting the toilet, after changing babies' nappies, before preparing and eating food.
- Bathing and washing.
- Drinking safe water.
- Using pit latrines.
- Using proper solid waste management systems such as refuse pits, compost heap, graveyard, incinerators, placenta pits.
- Using soak way pit or drainage channel (Proper waste water disposal),
- Using bath shelters for bathing.
- Using washing slab at water point for washing and
- Covering pit latrine squat hole.

Importance of Safe Hygiene Practices

Activity 2.3

Step 1

Facilitator divides participants into groups to discuss the importance of safe hygiene practices.

Step 2

Facilitator consolidates the responses and presents the importance of safe hygiene practices.

Importance

Hygiene Practice	Importance			
Hand Washing with soap	 Prevents transmission of diarrheal diseases e.g. cholera, typhoid, dysentery, Promotes personal hygiene, Promotes social interaction. 			
Drinking Safe Water	 Prevents diarrhoeal diseases e.g. cholera, dysentery, typhoid, Prevents Polio. 			
Covering of pit latrine squat hole	 Prevents breeding of disease vectors and vermin e.g. flies, cockroaches and rats - therefore prevents transmission of diarrhoea and other parasitic diseases. Reduces smell coming out of the hole. 			

Proper disposal of waste water	 Prevents breeding of mosquitoes, Provides cleanliness of the surrounding, Prevents rat infestations, Provides clean surrounding. 				
Bathing/ washing	 Prevents skin infections e.g. scabies, leprosy, Promotes personal cleanliness, Prevents eye infections, Prevents infestations of lice. 				
Washing at washing slabs	Prevents infection from bilharzia,Promotes cleanliness around the water point.				
Using pit latrines	 Prevents diseases e.g. cholera, typhoid, dysentery, bilharzia, polio etc. Provides privacy, social status and comfort to the users, Controls breeding of flies. 				
Using bath shelters	 Prevents diseases e.g. cholera, typhoid, dysentery, bilharzia, polio etc. Promotes personal hygiene. 				

Water and Sanitation Related Diseases

Activity 2.4

Step 1

Facilitator asks participants to brainstorm common water and sanitation related diseases and how they can be prevented.

Step 2

Facilitator consolidates responses and presents the list of common water and sanitation diseases and how they are prevented

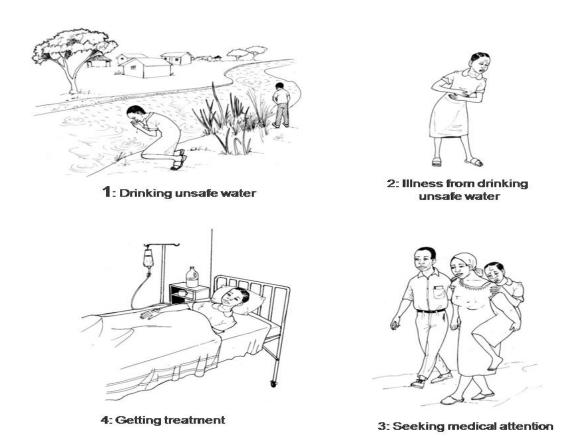


Figure 4. 2: Poor sanitation and unhygienic Practices

Common water and sanitation related diseases and preventive measures

Below are some of the common water and sanitation related diseases and how they are prevented:

Diseases

Cholera, Bloody diarrhoea (Dysentery), Typhoid, Bilharzia

Prevention methods

- Use of safe drinking water.
- Observe personal and food hygiene.
- Observing improved environmental sanitation.
- Drinking, washing and bathing using safe and clean water.

Summary

The facilitator summarises the main points in the topic, invites questions and gives clarification. He/she emphasises that water can harbour diseases if sanitation and proper hygiene practices are not observed. Most of the diseases caused by contaminated water can be prevented.

References

Malawi Government (2007). Draft PHAST Training Manual for Extension workers. Malawi Government. Lilongwe

Facilitator's Notes

Areas of emphasis

- Water and sanitation related diseases
- Prevention methods

Key words

Sanitation, hygiene

Assumed prior knowledge

Participants should have covered topics in Sanitation and hygiene

Methodology

- Brainstorming
- Lecturrettee
- Group discussion

Time required: 1 hour

Resources

LCD projector, flip charts and marker pens, chalkboard, illustrations, case scenarios, hand-outs, sample public information leaflets and brochures.

Module 5: Water Quality and Pollution Control

Introduction

Water quality and pollution control is important in ensuring the provision of potable water all the time. Members of the WUA Board should understand how issues of water quality and pollution control can be integrated in the planning process of water supply and sanitation activities.

Therefore, this module will enhance the participants' understanding of water quality and pollution control.

Objectives

By the end of this module participants should be able to:

- 1. Demonstrate an understanding of the major causes of water pollution
- 2. Facilitate effective monitoring of water quality

Structure of each Study Topic

This module has two topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participants' assumed prior knowledge, estimated time allocation for the topic, methodologies, learning resources and additional information for reference by the facilitator.

Skills to be Acquired

It is expected that by the end of the module, participants will acquire skills in:

• Monitoring water quality

Contents

This module contains the following topics:

- Water quality monitoring and surveillance
- Water pollution and treatment

Topic 1: Water Quality Monitoring and Surveillance

Introduction

Knowledge on water quality and pollution control is critical for the provision of safe and clean water. This topic aims at equipping participants with knowledge and skills on water quality monitoring and surveillance.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define water quality
- 2. Identify indicators of water quality
- 3. Explain water monitoring and surveillance and their importance

Content.

Definition of Water Quality

Activity 1.1

Step 1

Facilitator divides participants into groups to define water quality.

Step 2

Facilitator consolidates the responses and presents definition of water quality.

Description

Water quality refers to the suitability of water for various uses or purposes. Drinking water should be microbiologically safe i.e. no content of pathogenic bacteria, viruses, fungi and protozoa. It should also be chemically and physically hygienic.

Types of contamination and indicators of water quality

Activity 1.2

Step 1

Facilitator asks participants to brainstorm different types of contamination and indicators of water quality.

Step 2

Facilitator consolidates the responses and presents different types of contamination and indicators of water quality.

The table 5.1 below provides types of contamination and indicators of water quality.

Table 5.1: Types of contamination and indicators

Type of Contamination	Indicators		
Physical	Turbidity matter (suspended matter)		
	 Taste and Odour/smell 		
	• Colour		
Chemical	 Acidity 		
	 Alkalinity 		
	 Hardness 		
	 Toxicity 		
	Residual disinfectants		
	 Pesticides 		
Biological	 Presence of microbiological elements (Ecoli, coliforms) 		

Importance of conducting monitoring and surveillance

Activity 1.3

Step 1

Facilitator divides participants into buzz groups to discuss the importance of monitoring and surveillance.

Step 2

Facilitator consolidates the responses and presents importance of monitoring and surveillance.

Importance of conducting monitoring and surveillance

- Provision of early warning to protect the intended water users in the event of an accidental pollution.
- The assessment of the actual status of waters either at source, storage or distribution line.
- Compliance with various legal instruments.
- Early identification of water leakages.

Summary

Facilitator summarises the main points that have been covered, invites questions and emphasises the definition of water quality. He/she further outlines the importance of conducting water monitoring and surveillance.

References

Alan C Twort, Don D Ratnayyaka & Malkom J Brandt, (2000). Reprinted by Butterworth-Heinemann 2006. *Water Supply 5th Ed*, Oxford UK.

Ministry of Health, (2006). Draft Water Quality Surveillance Training Manual for Extension workers. UNICEF: Lilongwe.

Facilitator's Notes

Areas of emphasis

- Water quality
- Water monitoring
- Water surveillance
- Water testing

Key words

Monitoring, surveillance, indicator

Methodology

- Lecturette
- Buzz group
- Group discussion
- Brainstorming

Time required: 1 hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Water Quality Surveillance

Microbiological Indicators

Selection of parameters

The first step in deciding whether a particular parameter should be included in a monitoring programme is to ascertain whether:

- The substance is present. If so, at what level does it exist and does it reach levels that are of concern.
- Any human or other activities currently exist in the catchment that may contribute to the substance to become present in water.

In terms of priority, parameters to be included could be categorized into three:

- Microbiological quality and those parameters that control microbiological quality (disinfectants residue, ph and turbidity).
- Parameters that cause rejection of water (turbidity, taste, colour and odour).
- Chemicals of known health risk.

Characteristics of Biological Indicators

Testing of pathogens in water is not feasible for routine monitoring because of the following reasons:

- The number of different pathogens is *large*.
- Testing of different pathogens is *expensive*.
- Testing of different pathogens is difficult.

However, most pathogens share the same source or have the same transmission routes. Hence, microbiological indicators should share similar characteristics with pathogenic organisms and basic characteristics of an ideal indicator are as follows:

- Present wherever pathogens are found.
- Present in the same or higher numbers than pathogens.
- Specific for faecal or sewage pollution.
- At least as resistant as pathogens to conditions in natural water environments, and water purification and disinfection process.
- Non-pathogenic.
- Detectable by simple, rapid and inexpensive method.

Note:

Escherichia coli (E. Coli) has been identified to have the most of the above characteristics, that is:

Its presence in water indicates higher possibility of contamination by faecal matter. Its absence in water simply indicates low risk of possible contamination with pathogens rather than safe. Also, E. Coli may not provide a good indication of presence of viruses and protozoa.

Simple checks at source works

Twice daily checks should be carried out on chlorine dosage rate and the residue chlorine content of water entering supply.

Daily measurements on samples of raw and treated water should be carried out for turbidity; colour, odour, conductivity and pH value.

Where coagulation, clarification and filtration are applied, daily checks should also be carried out on dosages of coagulants, and the pH and turbidity of the water ex-clarifiers and ex-filters.

Topic 2: Water Pollution and Treatment

Introduction

Nature and human activities contribute to the degradation of water quality. Therefore water treatment is critical in making water suitable for human consumption. This topic will enable participants to appreciate the importance of water treatment.

Objectives

By the end of this topic, participants will be able to:

- Identify sources of water pollution
- Describe effects of water pollution
- Identify ways of preventing and abating water pollution
- Describe different methods of water treatment
- Explain advantages and disadvantages of different methods of water treatment

Content

Sources of Water Pollution

Activity 2.1

Step 1

Facilitator divides participants into groups to discuss possible sources of pollution.

Step 2

Facilitator consolidates the responses and presents sources of water pollution.

Sources

Sources of pollution include the following:

- Natural systems such as animal droppings, floods and forest fires.
- Human activities such as farming in water catchment areas.
- Agricultural activities where fertilizers, farm chemicals and animal chemicals are used and
- Industrial activities where effluent and solid waste are discharged into water bodies.

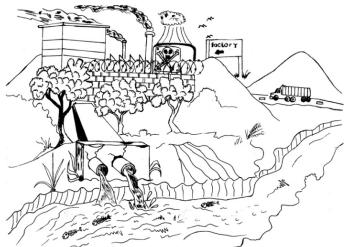


Figure 5.1: Pollution of Water Source

Effects of water pollution

Activity 2.2

Step 1

Facilitator asks the participants to brainstorm the effects of water pollution.

Step 2

Facilitator consolidates the responses and some of the effects.

Some of the effects include:

- Diseases due to hazardous pollutants.
- Water degradation as a result of pollutants toxicity, persistence and capacity for bioaccumulation.

Ways of Preventing and abating water pollution

Activity 2.3

Step 1

Facilitator divides participants into buzz groups to discuss how to prevent and abate water pollution.

Step 2

Facilitator consolidates the responses and presents ways of preventing and abating pollution.

Ways

- Water catchment protection
- Inspections
- Formulation of by-laws

Water Treatment

Activity 2.4

Step 1

Facilitator divides participants into groups to discuss methods of water treatment.

Step 2

Facilitator consolidates the responses and presents water treatment methods.

Water Treatment

Water treatment is the process of improving the quality of raw water to the levels that comply with human health requirements. It deals with processes such as sedimentation, filtration, aeration and chemical treatment.



Figure 5.2: Water Treatment

Advantages and disadvantages of different methods of water treatment

Activity 2.5

Step 1

In a lecturette facilitator presents advantages and disadvantages of different methods of water treatment.

Method of Water Treatment	Advantages	Disadvantages
Boiling	 Used for small quantities of water If boiling time is followed, kills all harmful microorganisms Used at house level Water taste becomes flat 	 Natural gases expelled from water. Concentration of minerals increased.
Chlorination	If properly done, kills all harmful micro-organisms	 Relatively expensive. Does not work well in turbid water. Taste and smell increase if overdosed. Not very effective in waters with colloidal matter.
Filtration/Screening	Removes suspended matter and improves colour, taste and smell of the filtered water	 Does not remove all harmful micro-organisms. Highly susceptible to turbid water (clogs easily).
Storage/sedimentation	Relatively cheap at large scale	 Does not remove all harmful micro- organisms. Reduces colour, taste and heavy particles.
Coagulation	Enhances precipitation of heavy materials	Expensive and requires special treatment facilities and skills.

Summary

Facilitator summarises the main points that have been covered, invites questions and emphasises on sources, effects, prevention and abatement of water pollution.

References

Alan C Twort, Don D Ratnayyaka & Malkom J Brandt, (2000). reprinted by Butterworth-Heinemann (2006). *Water Supply 5th* Edition, Oxford UK.

Waternet, Regional Master Degree programme in Integrated Water Resources Management (IWRM), Water Quality Management Module IWRM 8.1

Ministry of Health, (2006). Draft Water Quality Surveillance Training Manual for Extension Workers, UNICEF. Lilongwe

Areas of emphasis

- Sources and effects of water pollution
- Methods of water treatment
- Advantages and disadvantages of different methods of water treatment

Key words

Pollution, chlorination, filtration, treatment

Methodology

- Lecturette
- Brainstorming
- Group discussion

Time required: 2 hours

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Module 6: Operation and Maintenance

Introduction

This module aims at imparting knowledge and skills on Operation and Maintenance (O&M) to enable members of Water Users Association (WUA) understand how water supply schemes are operated and maintained to ensure sustainability and access to potable water supplies.

The module introduces participants to the project cycle and importance of O&M. It will assist WUA members in proper management of water supply and sanitation schemes.

Objectives

By the end of this module, participants should be able to:

- 1. Describe project cycle
- 2. Demonstrate an understanding of the importance of O&M

Structure of each Study Topic

This module has two topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participant's assumed prior knowledge, estimated time allocation for the topic, methodologies, learning resources and additional information for reference by the facilitator.

Skills to be Acquired

It is expected that by the end of this module, participants will acquire the following skills:

- Planning
- Operation and maintenance

Content

This module contains the following topics:

- Project cycle
- Operation and Maintenance

Introduction

To design, plan and implement a successful project there is need to follow proper sequence. For example, one cannot cook nsima before water boils but has to follow normal sequence. Similarly, if WUA intends to embark on a new project or extend the existing scheme, proper cycle must be followed.

This topic aims at equipping participants with knowledge and skills on how to follow a proper sequence when implementing a water and sanitation project.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define a project
- 2. Define project cycle
- 3. Explain the stages of the project cycle
- 4. List types of monitoring data
- 5. State common methods used in data collection

Content

Definition of a project and project cycle

Activity 1.1

Step 1

Facilitator asks the participants to define a project and project cycle in buzz groups.

Step 2

Facilitator summarises the discussion and provides the definition of a project and project cycle.

Definitions

- A project is a series of activities and investments to achieve objectives that are set to solve a specific problem that is affecting a community within a given time frame.
- Project Cycle refers to stages that a project goes through from start to completion.

Stages of Project Cycle

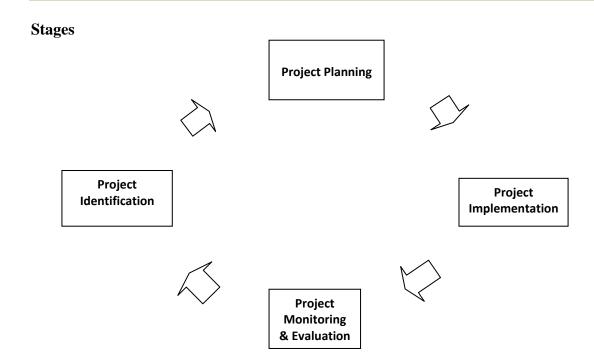
Activity 1.2

Step 1

Facilitator divides participants into groups to discuss stages of a project cycle.

Step 2

Facilitator consolidates the responses and presents the stages of a project cycle.



Singe	Description			
1. Project Identification	A Stage where one project-idea out of several alternatives is chosen and defined in consultation with the intended beneficiaries to address identified felt need.			
2. Project Planning	This is the stage at which the defined idea i carefully developed into operational project plans by the beneficiaries.			
	At this stage a project funding proposal can be submitted to potential financing institutions in case of inadequate resources for implementation.			
	At this stage a Project Management Committee is formed and trained to coordinate the implementation process.			

Description

Stage

3. Project Implementation

The stage where planned activities are carried out.

Community input and monitoring of water point siting, construction and civil works construction.

Community prepares the operation and maintenance plan.

Support for and monitoring of the contractors and the construction process.

Community organises community labour and materials for construction.

Facility testing and certification – facilities are tested and commissioned.

WPC/Project Committee signs certificate of completion.

Training of WPC/ Project Committees and caretakers. The main agenda here includes management of O&M – meetings, working with community, managing money, book keeping, facility use/care, hygiene and sanitation.

WPC or Project Committee works with community to manage funds for spare parts /O&M, provide support for caretakers and repair teams, water point maintenance, hygiene and sanitation.

4. Monitoring and Evaluation

At every stage of implementation the progress of the project is assessed against the plan. The project is also assessed during and at the end of the project to identify what has been achieved, and lessons learned.

Communities should take part in all monitoring and evaluation processes.

Type of Data for Monitoring and Evaluation

Activity 1.3

Step 1

The facilitator divides participants into groups to discuss how they can take part in monitoring and evaluation.

Step 2

The facilitator consolidates the responses and presents areas in which communities can take part.

Type of Data

Some type of data is as follows:

- No. of people served per water point,
- No. of water points working,
- No. of water points not working,
- No. of households without pit latrines,
- No. of households with traditional pit latrines and
- No. of households with improved pit latrines.

Data Collection Methods

Activity 1.4

Step 1

Facilitator asks participants to brainstorm the methods of data collection.

Step 2

Facilitator consolidates the responses and presents commonly used methods of data collection.

Methods

- Observation
- Ouestionnaire
- Checklist
- Community map
- Key informant

Summary

Facilitator summarises the main points that have been covered, invites questions and emphasises on the definitions of the project cycle, the stages in project cycle and an explanation of what is involved at each stage to enable participants identify and implement projects in a sustainable manner.

References

Malawi Government (2006). Monitoring and Evaluation Training Manual for District M&E officers, Lilongwe.

IFAD (2000). A Guide for Project Monitoring and Evaluation. www.ifad.org/evaluation/guide.

Government of Uganda (2006). Strategy on Community Score Cards as a Participatory Monitoring Tool in Northern Uganda Social Action Fund (NUSAF). NUSAF M & E Unit.

Facilitators Notes

Areas of emphasis

- Stages of the project cycle
- Meaning of a project and project cycle

Key words

Planning, implementation, monitoring, evaluation, data

Methodology

- Brainstorming
- Buzz group
- Group discussion

Time required: 2 hours

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 2: Operation and Maintenance

Introduction

Operation and Maintenance is vital for sustainability and access to potable water for a piped water supply scheme. This topic aims at imparting knowledge and skills to participants on the operations and maintenance of water supply systems.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define Operation and Maintenance
- 2. Explain the types of maintenance
- 3. State the components of a water supply scheme and their functions
- 4. Describe operational procedures and maintenance plan
- 5. Explain the importance of O&M

Content

Definition of Operation and Maintenance

Activity 2.1

Step 1

Facilitator asks participants to buzz in groups the definition of operation and maintenance.

Step 2

Facilitator consolidates the responses and defines operation and maintenance.

Definition

Operation

The running and handling of a water supply system.

Maintenance

An activity or a set of activities that ensures that a water supply system is in proper working condition.

Types of Maintenance

Activity 2.2

Step 1

Facilitator asks participants to brainstorm types of maintenance of water supply facilities.

Step 2

Facilitator consolidates the responses and presents types of maintenance.

Types

There are two main types of maintenance:

Preventive Maintenance

It is a pre-scheduled systematic inspections, repairs or replacements on the system.

Breakdown Maintenance

It is a timely response to breakdowns and public complaints and it involves carrying out repairs or replacements on the system.

Components of a water supply scheme and their functions

Activity 2.3

Step 1

Facilitator asks participants to outline components of a water supply scheme in buzz groups.

Step 2

Facilitator presents components of the water supply scheme.

Components

A piped water supply scheme comprises the following components: catchment, intake, screening tank, sedimentation tank, storage tanks, break pressure tanks, valve (e.g. air, ball, sluice and gate wash-out), treatment plant, transmission lines, distribution lines, tap points and soak-away pits. Figure 6 below illustrates components of a water supply scheme.

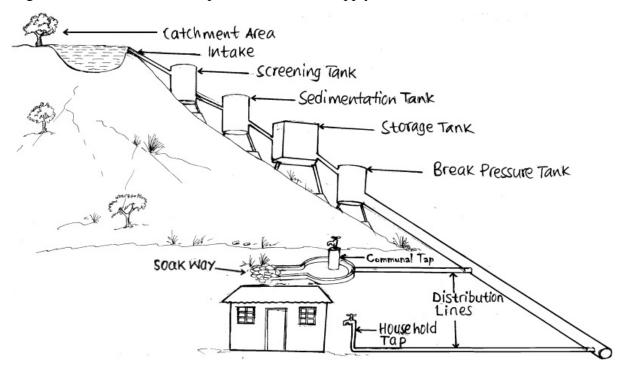


Figure 6.1: Components of a Water Supply System

Functions

Catchment

A catchment area conserves and protects the source of raw water for a water supply scheme.

Intake

A structure used to abstract raw water into the water supply system. Intake area must be kept tidy all the time to avoid contamination and blockages. Intake pipe should always be installed below the average annual water level and should be covered with a strainer.

Tanks

Structures used for water treatment, storage or breaking the pressure. They should be cleaned regularly to avoid siltation and contamination.

Treatment plant

Structures used for water treatment to meet acceptable national or international standards.

Valves

Valves are fittings used for controlling water flow in the water supply system.

Transmission/distribution lines

These are pipes of different types and sizes used for conveying water in the water supply system.

Tap points

Facilities used for supplying water to consumers.

Soak-away pits

Facilities used for waste water disposal at water point.

Operational procedures and maintenance plan

Activity 2.4

Step 1

In a lecturette, the facilitator presents operational procedures and maintenance plan.

Operational and Maintenance Procedures

The common procedures are as follows:

- Clean and service of intake structure regularly.
- Regular cleaning of water treatment plants and tanks.
- Routine servicing of pipes and fittings.
- Monthly inspection of pipelines.
- Regular flushing of the system.
- Regular cleaning of tap points and soak away pits and
- Proper control of valves.

Components of Maintenance Plan

A maintenance plan contains the following components:

Components	Descriptions				
Water facility	This section includes name of the scheme, location and condition of source, its layout (including geographical position), type of technology and components of the facility.				
Management Structure	This section includes details of users and their institutional governance (i.e. a WUA).				

Description of maintenance activities

This section includes type and frequency of occurrence; requirements to perform the activities (tools, materials, spare parts, skills, human resources); strategies for users' participation in maintenance activities (usually stated in a WUA constitution); where and how to access utility operators and spare parts; where and how to access extension workers/District Coordinating Team for training and follow-up support.

Maintenance Budget

This section includes activities, expected income and sources, and also expected costs.

Factors that negatively affect effective Operation and Maintenance

Activity 2.5

Step 1

Facilitator divides participants into groups to discuss factors that lead to ineffective operation and maintenance of water supply schemes.

Step 2

Facilitator consolidates the responses and presents the factors that lead to ineffective operation and maintenance of a water supply schemes.

Factors

Key factors which have been found to contribute to inadequate operational procedures include:

- Low profile of O&M.
- Inadequate access to information.
- Insufficient funds and misuse of funds.
- Inappropriate design.
- Poor management and overlapping responsibility, and
- Lack of policies and legal frameworks.

Importance of Operation and Maintenance

Activity 2.6

Step 1

Facilitator divides participants into groups to discuss the importance of operation and maintenance of a water supply scheme.

Step 2

Facilitator consolidates the responses and presents the importance of operation and maintenance of a water supply scheme.

Importance

Operation and Maintenance leads to:

- Sustainable service delivery.
- Satisfactory service level.
- O&M costs spreading over time.
- Extension of life span of equipment
- User's satisfaction and willingness to pay.



Figure 6.2: Maintenance of a water point

Summary

Facilitator summarises the main points contained in the topic, invites questions from the participants and clarifies the points, emphasising on the importance of O&M and the components of a water supply scheme.

References

Co-Water International (2004). Training Guide for Main or Scheme Committee. Community Water, Sanitation and Health Project. Thyolo.

IRC International Water and Sanitation Centre and World Health Organisation (2000). *Operation and Maintenance of Rural Water Supply and Sanitation Systems - A Package for Managers and Planners*. Malta

Farley M. and Trow S. (2007). Losses in Water Distribution Networks-A Practitioner's Guide to Assessment, Monitoring and Control. United Kingdom: IWA Publishing.

Facilitator's Notes

Areas of emphasis

- Importance of O & M
- Scheme components

Key words

Operation, preventive maintenance

Assumed prior knowledge

The participants should possess knowledge on project cycle and community based management.

Methodology

- Group discussion
- Lecturette
- Buzz group
- Brainstorm

Time required: 2 hours

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Pipe Types and Sizes

Different pipe types are commonly used in water supply schemes in Malawi. These range from Polyvinyl Chloride (PVC), Chlorinated Polyvinyl Chloride (CPVC), Galvanized Iron (GI), Cast Iron and Asbestos pipes.

Pipe Type	Application and Characteristics
PVC	Rigid; resistant to damage from heat and chemicals; used in waste, drain and vent systems; 98 percent failure rate at the joints when subjected to high water pressure in supply lines, but suitable for gravity fed systems where pressures are not as high.
CPVC	Rigid; resistant to damage from heat and chemicals; used in water supply systems; withstands the high pressure of supply systems.
GI	Used in supply and drain systems; strong but susceptible to corrosion and difficult to work with because they are very heavy and hard.
Cast iron	These were mainly used in old drainage systems; they are strong; durable but difficult to work with; they have been mainly replaced by PVC.
Asbestos	These were commonly used in sewerage works and some water supply networks. However, they are no longer being used in water supply systems.

Pipe sizes are commonly identified by inches using Nominal Pipe Size (NPS). The metric equivalent is called nominal diameter (DN). The metric designations conform to International Standards Organization (ISO) usage and apply to all plumbing, natural gas, heating oil, and miscellaneous piping used in buildings. The equivalent DN to NPS for water supply pipes are as follows:

DN	NPS	DN	NPS	DN	NPS	DN	NPS
(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
6	1/8	80	3	550	22	1200	48
8	1/4	100	4	600	24	1300	52
10	3/8	150	6	650	26	1400	56
15	1/2	200	8	700	28	1500	60
20	3/4	250	10	750	30	1600	64
25	1	300	12	800	32	1700	68
32	1 1/4	350	14	900	36	1800	72
40	1 1/2	400	16	1000	40	1900	76
50	2	450	18	1050	42	2000	80
65	2 1/2	500	20	1100	44	2200	88

NB.

Different types of pipes and their fitting should be available for demonstrations.

Module 7: Financial Management

Introduction

Prudent financial management is a key component for efficient and effective operation of a system. This module will enable the participants to understand aspects of financial management for sustainability of their schemes. It will also help participants to know and understand how tariffs are set and business plans are developed.

Objectives

By the end of this module, participants should be able to:

- 1 Explain basic principles of financial management
- 2 Demonstrate an understanding of tariff setting, record keeping, auditing, budgeting, cash flow and business plans

The Structure of each Study Topic

This module has six topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participant's assumed prior knowledge, estimated time allocation for the topic, methodologies, learning resources and additional information for reference by the facilitator.

Skills to be Acquired

It is expected that by the end of this module, participants will acquire the following skills:

- Developing financial plans
- Interpreting financial and audit reports

Content

This module contains the following topics:

- Business plan
- Budgeting
- Tariff setting
- Accounting and book keeping
- Cash flow
- Auditing

Topic 1: Business Plan

Introduction

Business plans are important for the running of any water supply scheme. It is therefore important for organisations such as WUA to have business plans if they are to successfully manage their systems.

This topic will equip participants with knowledge and skills on how to develop business plans.

Learning Objectives

By the end of this topic, participants will be able to:

- Define a business plan
- Outline the contents of a business plan
- Explain the importance of a business plan

Content

Definition of Business Plan

Activity 1.1

Step 1

Facilitator asks participants to brainstorm what they know about a plan, and then a business plan.

Step 2

Facilitator consolidates responses and defines a business plan.

Definition

It is an outline of what type of a business venture is to be done and its potential customers.

Content of a Business Plan

Activity 1.2

Step 1

Facilitator divides participants into groups to discuss the content of a business plan.

Step 2

Facilitator consolidates the responses and outlines content of a business plan.

Content

- Group particulars
- Courses attended that relate to your new business
- Business description
- Initial investment production and marketing costs
- Competitors
- Savings funds Utilisation
- General aspects

Importance of Business Plan

Activity1. 3

Step 1

Facilitator asks participants to buzz in groups the importance of a business plan.

Step 2

Facilitator consolidates the responses and presents the importance of a business plan.

Importance

Business plan is important for the following reasons:

- Helps to transfer one's thoughts on paper and put them into practice.
- Helps to raise finance from lending institutions.
- Helps to monitor a business.

Summary

Facilitator summarises the main points in the topic, invites questions from participants and emphasises the definition of a business plan, its contents and importance.

References

Ministry of Gender Youth and Community Services (2002). *Umodzi ndi Phindu: Manual for Training Entrepreneurs' in Enterprise Development*, 2nd Edition. Ministry of Gender Youth and Community Services. Lilongwe.

Ministry of Economic Planning and Development (undated), MASAF (undated), MASAF Training Manual (Finance). Ministry of Economic Planning and Development: Lilongwe

Facilitator's notes

Areas of emphasis

- Business plan
- Importance of business plan
- Content of a business plan

Key words

Business, Plan

Assumed prior knowledge

Participants are expected to have prior business planning knowledge

Methodology

- Group discussion
- Buzz group
- Brainstorming

Time required: 1 hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

SAMPLE BUSINESS PLAN FOR GROUP BUSINESS (Adapted from Trickle up)

A.	GRO	GROUP PARTICULARS			
	(1)	The name of our business group is			
	(2)	Our lo	ocation is		
					•••••
	(3)	Our A	address is		
					•••••
	(4)	The gr	oup has a total of	working n	nembers.
	(5) We agree that all members will participate in the plannin follows:				and are organized as
		Chairp	erson:		
		Secret	ary:		
		Treasu	ırer:		
	Committee members:				
		Other	ordinary members are:		
В.	COURSES ATTENDED THAT RELATE TO YOUR NEW BUSINESS				
	DATI	E	COURSE TITLE	ORGANISED BY	CONDUCTED BY

C.	BUSINESS DESCRIPTION					
	(1)					
	(2)	The business involves				
		(buying,/selling, providing services, other)	food processing,			
	This	is a new business or exp	pansion of existing busines	SS .		
		(Tick whichever is applicable)				
	(3)	Our customers will be				
D.	INI	TIAL INVESTMENT				
Mone	y or m	aterial value				
			Item	Value		
	(1) (Contribution from group members				
	(2) L	Loan or grant				
	(3) F	From other sources (specify)				
	(4) T	Cotal initial investment				
E.	PRO	DUCTION AND MARKETING COS	TS			
			Item	Cost		
	(1)	Materials and supplies list				
	(2)	Transportation costs				
	(3)	Other costs				
	(4)	Total production costs				

(Unit costs and profits of the product)

	(5)	The Unit of measure of our product or services is
		The first sales will be expected in the month of business operations.
	(6)	In the first month of our sales, we plan to sell
	(7)	The price of each Unit will be
	(8)	The cost of producing and/or marketing each unit will be
	(9)	Our profit per unit will be
	(10)	Our total income from the first three months will be
	(11)	Total costs for the first three months of sales will be
	(12)	Profit for the first three months will be
F.	COM	PETITORS
	i)	Who will be your competitors (e.g. borehole drillers and those who use hand dug wells and other sources of water)
	ii)	How are you going to surpass your competitors?

PROFIT DISTRIBUTION

			K	t
	(1)	Reinvestment		
	(2)	Savings (in which bank)		
G.	GEN	ERAL ASPECTS		
	(1)	We are ready to start our business on	and exp	ect to
	(2)	Problems expected (e.g. theft, scarcity of chemicals	for treating water)	
	(3)	Plans to solve the problems (e.g. f tank),	requent cleaning	of the
	(4)	Plans for expansion (e.g. extending supply)		

Topic 2: Budgeting

Introduction

Resources are always scarce and inadequate. The resources for an organisation such as WUA, which will be realized from tariffs or grants should be prioritized and broken down into months. Just like shopping, it is important to list down the items and their cost so that the expenditure is within the money available. Spending without plans often results into depletion of resources or over expenditure whose effect is that some activities may fail to be implemented, therefore it is important to budget.

This topic therefore will equip participants with knowledge and skills in budgeting.

Objectives

By the end of the topic, participants will be able to:

- 1. Define a budget
- 2. Describe the components of a budget
- 3. Demonstrate how to prepare a budget
- 4. Explain the importance of a budget

Content

Definition of Budget

Activity 2.1

Step 1

Facilitator asks participants to brainstorm the definition of a budget.

Step 2

Facilitator consolidates the responses and defines a budget.

Definition

A budget is a detailed guide of planned activities and their estimated maximum costs for a prescribed future period.

Components of a Budget

Activity 2.2

Step 1

Facilitator asks participants to buzz in groups the components of a budget.

Step 2

Facilitator consolidates the responses and presents components of a budget.

Components

The following are the main components of a budget:

- Item number
- Description of the item
- Unit: this can be -days, kilograms, litres, number of people etc
- Quantity
- Frequency; how many times the item may be required,
- Rate/ Price and
- Total amount.

Importance of a Budget

Activity 2.3

Step 1

Facilitator divides participants into groups to discuss the importance of a budget.

Step 2

Facilitator consolidates the responses and presents the importance of a budget.

Importance

A budget is important because it helps organisations such as WUA to:

- Prioritize activities and plan within available resources/funds
- Monitor expenditure
- Measure performance and
- Plan activities.

Summary

Facilitator summarises the main points in the topic, invites questions from participants and emphasises the components and importance of a budget.

References

Ministry of Gender Youth and Community Services (2002). *Umodzi ndi Phindu: Manual for Training Entrepreneurs' in Enterprise Development*, 2nd Edition. Ministry of Gender Youth and Community Services. Lilongwe.

Ministry of Economic Planning and Development (undated), MASAF (undated), MASAF Training Manual (Finance), Ministry of Economic Planning and Development. Lilongwe.

Areas of emphasis

- Definition of a budget
- Components of a budget
- Importance of budget

Key words

Budget, plan, monitoring, expenditure, performance.

Assumed prior knowledge

Participants are expected to have prior knowledge of business plan and shopping.

Methodology

- Group discussion
- Brainstorming
- Buzz group

Time required: 1hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 3: Tariff Setting

Introduction

In most communities people think water is free. The processes to bring sufficient quantities of water of acceptable quality to consumers require money. Money can be realized through grants, loans, or charging for consumption and usage.

Tariff, synonymous to price has to be reasonably set in order to balance the provision of water as a right and the maintenance of the system. In normal circumstances the cost of the product has to be recovered through the marginal pricing; however this might not be the case for water.

This topic will equip participants with knowledge on how to set tariffs for their systems.

Objectives

By the end of the topic, participants will be able to:

- 1. Define tariff
- 2. State steps followed when setting a tariff
- 3. Explain the importance of a tariff

Content

Definition of Tariff

Activity 3.1

Step 1

Facilitator asks participants to explain their experience in setting prices.

Step 2

Facilitator asks participants to be in buzz groups to define a tariff.

Step 3

Facilitator consolidates the responses and defines tariff.

Definition

Tariff is a functional cost at which water services are provided to the communities.

Setting up a Tariff

Activity 3.2

Step 1

Facilitator asks participants to brainstorm the costs that are incurred in the provision of water to the community/individuals and how such costs can be recovered.

Step 2

Facilitator asks participants to discuss in groups what can happen if communities protest against tariff.

Step 3

Facilitator consolidates the responses from group work.

Step 4

Facilitator provides an example on how to set a tariff.

Example

Number of consumers in th	500			
Cost of supplying water: • Staff wages	MK	13,000.00/month		
Administration costs		MK	4,500.00/month	
Maintenance costs (laborate)	our & material needs)	MK	7,000.00/month	
Office costs (rentals, sta	ationery, cleaning)	MK	2,500.00/month	
Total monthly costs	MK	27,000.00/month		
Cost of supplying water to one consumer/month 27,000/ 500 = MK 54.00				
10% additional for extensions & new connections $(10/100) \times 54.00 = MK 5.40$				
Total Tariff $MK 54.00 + MK 5.40 = MK 59.40/month$				

Steps in Setting up a Tariff

The following are steps that are followed in setting up a tariff:

- 1. Come up with the estimated customer base (from business plans, budgets or forecast).
- 2. Come up with the cost of supplying water; include staff wages, office cost, cost of maintenance (minimum stock requirement, labour).
- 3. Divide the estimated supply and maintenance cost with the customer base and multiply with the margin (percentage e.g. 110% for 10%) to come up with the marginal tariff.
- 4. Call for a meeting involving local leadership-Area Development Committee or Traditional Authority (TA), Member of Parliament, Church leaders.
- 5. Propose amount/rate of increase.
- 6. Reach consensus.
- 7. Inform communities through a community meeting or community leaders.
- 8. Document the accepted rate in the finance records.
- 9. Agree on period for review of tariff.

Importance of a Tariff

Activity 3.3

Step 1

Facilitator asks participants to brainstorm the importance of a tariff.

Step 2

Facilitator consolidates and summarises the responses.

Importance

- Helps in cash-flow forecasting and budgeting.
- Communities use water responsibly.
- Promotes equity.
- Maintenance and operations of the system.
- Help avoid disputes between WUA and communities.
- Raising income for the WUA for its sustainability.

Challenges of a Tariff

Activity 3.4

Step 1

Facilitator divides participants into groups to discuss the challenges of water tariff.

Step 2

Facilitator consolidates and presents challenges of water tariff.

Challenge

Some members of the community may not afford the tariff and may return to unsafe water sources.

Summary

Facilitator summarises the main points covered in the topic, invites questions and answers, makes clarifications and ends the session by emphasizing the definition of the tariff, importance and challenges of the tariff.

References

IRC International Water and Sanitation Centre and World Health Organisation (2000). *Operation and Maintenance of Rural Water Supply and Sanitation Systems - A Package for Managers and Planners*. Malta

Facilitator's notes

Areas of emphasis

- Definition of a tariff
- Importance of a tariff
- How to set up a tariff

Key words

Tariff, cost, pricing, consensus

Assumed prior knowledge

Participants must have prior knowledge of business plan and budgeting.

Methodology

- Group discussion
- Brainstorming
- Buzz group

Time required: 1 hour 30 minutes.

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 4: Accounting and Book Keeping

Introduction

Accounting and record keeping involves the keeping of records for each transaction for purposes of transparency, accountability and reporting. Each transaction (income & expenditure) should be tracked to a particular activity and budget line. Accounting and bookkeeping also helps in preparation of financial reports and facilitates smooth audits. It is a legal requirement to keep records for an organisation for a minimum period of 7 years.

This topic will equip the participants with knowledge and skills of financial reporting, book keeping, account management and interpretation.

Objectives

By the end of the topic participants will be able to:

- 1. Define income and expenditure
- 2. Explain the sources of income
- 3. Explain the different forms of expenditure
- 4. Describe types of financial record keeping
- 5. Explain the importance of accountability and reporting

Content

Definition of Income and Expenditure

Activity 4.1

Step 1

Facilitator asks participants to brainstorm the definition of income and expenditure.

Step 2

Facilitator consolidates the responses and defines income and expenditure.

Definition

Income

These are proceeds realised from any form of business undertaking.

Expenditure

This is money that goes out of an organisation when carrying out its activities.

Sources of income and forms of expenditure

Activity 4.2

Step 1

Facilitator divides participants into groups to discuss sources of income and forms of expenditure.

Step 2

Facilitator consolidates the responses and presents common sources of income and forms of expenditure.

Sources of income

The following are the common sources of income:

- Community contributions,
- Donations,
- Interest on deposits,
- Penalties (reconnection fee) and
- Sale of water.

Forms of expenditure

The following are some forms of expenditure:

- Paying wages,
- Paying contractors,
- Hiring transport,
- Paying bus fares,
- Buying pipes and fittings,
- Paying for accommodation,
- Buying equipment,
- Paying for utilities,
- Expenses for Board meetings.

Types of Financial Record Keeping

Activity 4.3

Step 1

In a lecturette facilitator presents the types of financial record keeping.

Types

The following is the list of common types of financial records and their definitions:

Receipt

A receipt is a document which shows that money has been received or paid out.

It is important for the WUA to write a receipt when it receives money, and must ask for a receipt when it makes payments.

Cash Sale

It is a document provided by suppliers of goods to accept that goods have been paid for.

Vouchers

A voucher is a document used to authorize and approve payments.

Cheque Book

A Cheque book is a booklet containing cheques.

Petty cash book

It is a book in which all payments of petty cash are recorded.

Expenditure Summary Sheet

Is a document that is used to summarise expenditures according to categories of expenses as shown in the cashbook and petty cash book sub-columns.

Cashbook

It is a book which contains income and expenditure columns where payments and deposits are recorded.

Bank statement

Bank Statement is a bank record that shows details of money that goes in and out of bank accounts.

Bank Reconciliation Reports

It is a record showing cheque or cash deposits against bank withdraws.

Quotations

A quotation is a price list of goods or services that are to be bought from a particular supplier or service provider.

Importance of Accountability and Reporting

Activity 4.5

Step 1

Facilitator asks participants to buzz in groups the importance of accountability and reporting.

Importance

Accountability involves openness in budgeting, recording financial transactions, reporting performance results, and auditing.

Financial reports are important because they reveal an entity's performance over a given period. Analysis of such reports, using appropriate ratios, help management in decision making.

Summary

Facilitator summarises the main points covered in the topic, invites questions, makes clarifications with emphasis on financial record keeping and importance of accountability and reporting.

References

Ministry of Economic Planning and Development (undated), MASAF (undated), MASAF Training Manual (Finance). Ministry of Economic Planning and Development. Lilongwe.

Areas of emphasis

- Financial record keeping
- Accountability
- Bank statement and reconciliation
- Income and expenditure
- Financial reporting

Key words

Income, expenditure, accountability, reporting

Assumed prior knowledge

Participants must have prior knowledge of business plan and budgeting.

Methodology

- Lecturette
- Group discussions
- Brainstorming
- Buzz group

Time required: 2 hours

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment, sample cheques, cashbook, receipts, cash sales, voucher, cheque book and balance sheet.

Topic 5: Cash flow

Introduction

Money is a very important resource for running an organization. The organisation should therefore know how much money is available for its operations.

This topic will equip participants with knowledge and skills on how to prepare cash flows (both actual and forecast) based on the prevailing operations.

Objectives

By the end of this topic participants will be able to:

- 1. Define a cash flow
- 2. Explain different types of cash flows
- 3. Describe content of a cash flow
- 4. State the Importance of cash flow

Content

Definition of Cash flow

Activity 5.1

Step 1

Facilitator asks participants to brainstorm the definition of Cash flow.

Step 2

Facilitator consolidates the responses and defines Cash flow.

Definition

Cash flow is the outline of inflows and outflows of cash.

Types of cash flows:

Activity 5.2

Step 1

Facilitator asks participants to buzz in groups the different types of cash flow.

Step 2

Facilitator consolidates the responses and presents the different types of cash flows.

Types

The following are the types of cash flows:

Actual Cash flow

Actual cash flow is based on the cash transactions for the past periods.

Forecast Cash flow

Forecast cash flow is based on the future requirements.

Preparation of Cash flow

Activity 5.3

Step 1

In a lecturette facilitator demonstrates the preparation of a cash flow.

Preparation

Actual Cash flow

The process of preparing a cash flow is as follows:

- Extract cash balances from the cashbook and petty cash book as at the beginning of the period.
- Add income received e.g. water sales, donations, interests earned etc.
- Subtract actual expenditure (payments). This includes all payments made in the period e.g. monthly, quarterly or annually and
- The result is the closing cash balance which should be supported by bank reconciliation and a copy of bank statement.

Forecast Cash flow

- The process of preparing forecast cash flow is similar to the actual but involves the expected (estimates) cash flow (in/out).
- The estimates can be extracted from plans and budgets. These calls for revision of plans and budget each time one is making the cash flow forecast to carry forward activities not done in the previous months or drop them completely if they are not to be done.
- Income forecast can be based on current cash sales and expansion of connections as per plans.

Importance of Cash flow

Activity 5.4

Step 1

Facilitator asks participants to brainstorm the importance of a cash flow.

Step 2

Facilitator consolidates the responses and presents the importance of a cash flow.

Importance

Cash flows help organisations in the followings ways:

- To know their liquidity.
- To plan when to make payment.
- To arrange for credits e.g. bank drafts.

Summary

Facilitator summarises the main points covered in the topic by revising the types of cash flow, the process followed in preparing a cash flow and the importance of preparing a cash flow.

References

Ministry of Gender Youth and Community Services (2002). *Umodzi ndi Phindu: Manual for Training Entrepreneurs' in Enterprise Development*, 2nd Edition. Ministry of Gender Youth and Community Services. Lilongwe.

Ministry of Economic Planning and Development (undated), MASAF (undated), MASAF Training Manual (Finance). Ministry of Economic Planning and Development. Lilongwe.

Areas of emphasis

- Cash flow
- Types of cash flows
- Importance of cash flow

Key words

Cash flow, actual, forecast.

Assumed prior knowledge

Participants must have prior knowledge of business plan, budgeting and accounting.

Methodology

- Lecturette
- Group discussion
- Brainstorming

Time required: 1 Hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 6: Auditing

Introduction

Any organization or entity undergoes auditing as a control and compliance measure. This can be done annually, as required by state laws (external audit) and once or twice a year, or anytime as planned and sanctioned by management (internal audit).

This topic highlights key elements of auditing which are important for proper management and enhancing transparency and accountability.

Learning Objectives

By the end of the topic, participants will be able to:

- 1. Define auditing
- 2. Identify types of audit
- 3. Explain importance of auditing
- 4. Describe audit report.

Content.

Definition of Auditing

Activity 6.1

Step 1

Facilitator asks participants to buzz in groups the definition of auditing.

Step 2

Facilitator consolidates the responses and defines auditing.

Definition

Auditing is the inspection of records to ensure compliance with internal control systems, procedures, laws and regulations.

Types of audit

Activity 6.2

Step 1

In a lecturette facilitator explains the types of audit.

Types

The following are the types of audit:

Type	Explanation		
Internal audit	It is an internal check on how the organisation's control systems are working towards the realisation of goals.		
External audit	It is verification of the assets and liabilities by an independent firm of accountants.		
Management audit	This aims at appraising the efficiency of management.		
Value for Money Audits	These are audits that compare the inputs into an activity with the outputs by critically looking at the processes involved. Generally, the economy, efficiency and effectiveness with which management utilises an organisation's resources are evaluated.		

Importance of auditing

Activity 6.3

Step 1

Facilitator asks participants to buzz in groups the importance of auditing.

Step 1

Facilitator consolidates the responses and presents the importance of auditing.

Importance

The following are the importance of auditing:

- Addressing financial management shortfalls.
- Improves operations compliance with system rules and procedures to achieve value for money.

Description of Audit Report

Activity 6.4

Step 1

Facilitator asks participants to buzz in groups the description of audit reports.

Step 2

Facilitator consolidates the responses and describes audit report.

Description

At the completion of every audit there is an audit report whose contents should be agreed upon by the auditor and auditee. The audit report should respond to the queries raised by the audit and the responses should be included in the management responses column.

Summary

Facilitator summarises the main points covered in the topic by emphasising the types of audits and importance of auditing.

References

Ministry of Economic Planning and Development. MASAF (undated), MASAF *Training Manual* (Finance). Lilongwe.

Areas of emphasis

- Auditing
- Types of audits
- Importance of audit
- Types of audit reports

Key word

Auditing, auditor, auditee.

Assumed prior knowledge

Accounting, book keeping and budgeting

Methodology

- Buzz group
- Group discussion
- Lecturette
- Brainstorming

Time required: 1 hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Additional Information

Preparing for an audit

- The WUA should thoroughly prepare for an audit by ensuring that all financial records are properly supported, approved, signed for and filed. This will make the job of the auditor easy.
- Management of the WUA should be available to reply to an audit report.
- Failure to reply to an audit report may result in undesired and untrue findings being presented.

Module 8: Procurement

Introduction

This module will provide a general overview of procedures involved in procurement and contract management and good practices in stores management.

It will enable all members of WUA to properly procure works, goods and services; manage contracts; manage stores; and apply appropriate decision making skills. More importantly, the module will equip the WUA members with knowledge of legal implications of contracts and importance of transparency and accountability in awarding of contracts.

Objectives

By the end of this module, participants should be able to:

- 1. Procure goods, works and services
- 2. Describe how contracts are managed
- 3. Manage stores

The Structure of each Topic

This module has three topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic, there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participant's assumed prior knowledge, estimated time allocation for the topic, methodologies, learning resources and additional information for reference by the facilitator.

Skills to be Acquired

By the end of this module, participants will acquire the following skills:

- Managing Contracts
- Procurement of goods, works and services.
- Managing stores

Content

This module covers the following topics:

- Procurement of goods, works and services
- Contract management
- Stores management

Topic 1: Procurement of Goods, Works and Services

Introduction

Procurement is an important activity in a project. It is through procurement that goods, services or works are acquired in the most transparent and competitive manner. It is envisaged that members of WUA board will be involved in different procurement processes at various levels. It is important therefore that members are well equipped with knowledge and skills in procurement.

This topic will equip participants with knowledge and skills on procurement and accountability issues.

Objectives

By the end of this topic, participants will be able to:

- 1. Define procurement
- 2. Describe different procurement methods
- 3. Describe procurement procedures
- 4. Define transparency and accountability
- 5. Mention ways of ensuring transparency and accountability

Content

Definition of Procurement

Activity 1.1

Step 1

Facilitator asks participants to brainstorm definition of procurement.

Step 2

Facilitator consolidates the responses and presents the definition of procurement.

Definition

Procurement is a process of acquiring goods, works and services following laid down guidelines.

Procurement Methods

Activity 1.2

Step 1

Facilitator asks participants to buzz in groups different procurement methods they know.

Step 2

Facilitator consolidates the responses and presents different procurement methods.

Methods

The following are some of the methods used in procurement of goods, works and services:

a. Open Tendering.

This method is used for large volume contracts. Tenders are advertised for bidding using standard bidding documents. A minimum of 21 days be provided from the date of invitation to date of submission.



Figure 9.1: Opening of bids

In this method, bids are submitted in sealed envelopes and are opened in public in the presence of representatives of the bidders who choose to attend. Minutes of bid opening are promptly prepared and sent to the bidders.

b. Shopping or Quotation

In this method, the purchaser is required to obtain and compare at least three quotations to establish reasonableness of price.

Shopping method is used to procure small amounts of off-the-shelf goods or standard specification commodities for which more competitive methods are not justified on the basis of cost or efficiency.

c. Individual Consultants

Individual consultants are selected on the basis of their qualifications for the assignment. Consultants shall be selected through comparison of qualifications of at least three candidates among those who have expressed interest in the assignment or have been approached directly by the WUA board.

Procurement Procedure

Activity 1.3

Step 1

In a lecturette facilitator explains procedures for procurement.

Procedure

The following are the key steps of procurement:

a. Needs Identification - the client identifies the need for a service, good or work.

- b. Preparation of Bidding Document.
- c. Advertising client invites bidders through adverts in news papers to tender for the item.
- d. Bid opening the client invites bidders for the opening of the bids.
- e. Evaluation an adhoc committee is set up to evaluate tenders and prepare an evaluation report.
- f. Review of evaluation report Internal Procurement Committee reviews the evaluation report and recommends the successful bidder.
- g. No Objection IPC seeks a "no objection" from the Office of Director of Public Procurement (ODPP).
- h. Award of Contract and Contract Negotiations The WUA Board approves the evaluation report and awards the contract to a successful bidder for contract signing.

Definition of Transparency and Accountability

Activity 1.4

Step 1

Facilitator asks participants to buzz in groups the definition of transparency and accountability.

Step 2

Facilitator consolidates the responses and defines transparency and accountability.

Definition

Transparency is doing things in the open and clear manner that everyone may be able to see and understand how they were done.

Accountability is a manner in which things are conducted so that an explanation is given on how they were done for everyone to understand and accept.

Ways of ensuring transparency and accountability

Activity 1.5

Step 1

Facilitator divides participants into groups to discuss ways of ensuring transparency and accountability.

Step 2

Facilitator consolidates the responses and presents ways of ensuring transparency and accountability.

Ways

The following are ways of ensuring transparency and accountability;

- Use of open tendering Advertising, invitation for bids/tenders.
- Use of Request for Quotations forms to solicit quotations.
- Opening of quotations/bids/proposals should be done at the same time.
- Evaluation of quotations/bids/proposals should be done by a team.
- IPC should review evaluation reports prior to award of contracts.
- Disclosure on the award of contract.

Summary

Facilitator summarises the main points contained in topics, invites questions from the participants and clarifies the points. He/she emphasises on the definitions of transparency and accountability and ways of ensuring these.

References

IBRD (May 2004). Procurement Under IBRD Loans and IDA Credits. Washington DC;

ODPP: (2004). Procurement Regulations

Facilitator's Notes

Area of emphasis

- Definition of transparency and accountability
- Procedures of procurement

Key words

Transparency, accountability, bid/tender, evaluation, quotation, award, disclosure.

Assumed prior knowledge

Participants may need to have learnt about business procurement.

Methodology

- Lecturette
- Group discussion
- Brainstorming
- Buzz group

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 2: Contract Management

Introduction

A well managed contract is crucial for the success of a project. For the water supply systems to run efficiently and effectively there is need for management to acquire skills in contract management as they will likely manage contracts on behalf of their communities including staff contracts.

This topic will equip participants with knowledge and skills on how to manage contracts.

Objectives

By the end of this topic, participants will be able to:

- 1. Define contract
- 2. Describe requirements of a contract
- 3. Describe different legal implications of contracts

Content

Definition of Contract

Activity 2.1

Step 1

Facilitator asks participants to brainstorm the definition of contract.

Step 2

Facilitator consolidates the responses and defines contracts.

Definition

A Contract is a legally binding agreement that creates and defines the obligations between two or more parties.

Formation of a Contract

Activity 2.2

Step 1

Facilitator asks participants to buzz in groups formation of a contract.

Step 2

Facilitator consolidates the responses and explains how a contract is formed.

Requirements

The following are requirements of a contract:

- Offer and Acceptance letters (agreement).
- Consideration- consideration is known as the price of a promise (contract value). The idea is that both parties to a contract must bring something to the bargain, that both parties must offer some benefit.
- Legal capacity- the parties entering into a Contract must have the necessary capacity to enter into contract.
- Contract period- the parties agree to the period the contract will take i.e. when the works or services will be completed or the goods will have been supplied.
- Contract liability period- this is the period during which, all faults or defects on goods or services must be rectified by the supplier or contractor to the satisfaction of the client.

Legal Implications of Contracts

Activity 2.3

Step 1

In a lecturette facilitator explains the legal implication of contracts.

Breach of Contract

A breach of contract is a failure to perform an obligation as stated in the contract. For example, if a contractor fails to execute part or whole of the works or the client fails to make payments as agreed in the contract.

Some of the legal implications for breach of contract are as follows:

- Termination of contract.
- Compensatory damages to the client.
- Liquidated damages to the client.
- Punitive damages to either parties.

Summary

The facilitator summarises the main points covered, invites questions and clarifies them. He/she emphasises on requirements of a contract and legal implications.

References

Cambridge International College Study Guide (Sept 2007). Contract Management Process

Areas of emphasis

The facilitator will be required to emphasise on the following areas:

- Definition of contract
- Contract definition and formation requirements
- Legal implications of a contract

Key words

Contract, damages, termination, requirements, contract period, contract value.

Assumed prior knowledge

Participants may need to have learnt about budgeting and procurement requirements.

Methodology

- Brainstorming
- Lecturette
- Buzz group

Time required: 1 hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Additional Information

The most important feature of a contract is that one party makes an offer for an arrangement that another accepts.

- An **offer** is something capable of being accepted.
- An acceptance is a positive response to an offer

Introduction

Stores Management ensures that materials, equipment and tools are properly managed for efficient, effective and economic use in a project.

This topic will equip participants with knowledge and skills to manage stores.

Objectives

By the end of this topic, participants will be able to:

- 1. Define stores management
- 2. State stores record keeping procedures
- 3. Describe stores inventory
- 4. Describe stock taking.

Content

Definition of Stores Management

Activity 3.1

Step 1

Facilitator asks participants to brainstorm the definition of stores management.

Step 2

Facilitator consolidates the responses and defines stores management.

Definition

Stores Management is a proper way of store keeping and stock control.

Stores Record Keeping Procedures

Activity 3.2

Step 1

Facilitator asks participants to buzz in groups the stores record keeping procedures

Step 2

Facilitator consolidates the responses and describes stores record keeping procedures.

Step 3

Facilitator organises a visit to the nearest stores for demonstration after the session.

Procedures

The following are some basic procedures on stores record keeping and maintenance:

- Stores should be counted and recorded promptly after receipt.
- Each entry of store record should be supported by a properly authorised voucher or a job order with necessary details.
- Vouchers should be serially numbered for easy checking.

In case of manual record system, a wrong entry should not be erased but crossed out with the correct record entered by its side. Alternatively, a new entry should be made, cross-referencing the wrong entry.

All corrections on the records should be re-written or re-entered and signed off by the authorising officer.

Stock Taking

Activity 3.3

Step 1

Facilitator asks participants to buzz in groups stocktaking.

Step 2

Facilitator consolidates the responses and explains stocktaking.

Stock Taking

Stock taking is carrying out checks or audits on goods in the stores. It involves the checking of actual goods in the stores as well as the stores records on what has come in and what has gone out.

Stocktaking should be conducted on a regular basis by members not in direct control of the stock for instance members of WUA Board. Supervisors should also be encouraged to undertake surprise stock checks from time to time.

Summary

The facilitator summarises the main points covered, clarify points which are difficult to understand and invite questions, if any from the participants. He/she should emphasise on receipt of stores and stock taking.

References

Cambridge International College Study Guide (May 2006): *Stores Management and Stock Control*.

Areas of emphasis

The facilitator would need to emphasize on the following areas;

- Issue of stores
- Stores records
- Stock taking

Key words

Stock, stores, records

Assumed prior knowledge

Participants should have already learnt about budgeting and procurement of goods.

Methodology

- Site visit
- Brainstorming
- Demonstration
- Buzz group

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Common Terms

Term	Explanation	
Store	An area set aside into which all the items and materials required for production, maintenance, distribution are received, and housed for safekeeping, and from which they will be issued as required.	
Stock/Inventory	Various items and materials received into, housed in and issued from Stores.	
Store Keeping	 The actual handling of the items or materials received into, held in and issued from the store. The work involves: Receiving items and materials, including the inspection of them; Storing the various stock items in the most appropriate fashion, and methods, and placing them in such a way that any item or material in the store can be located quickly and easily when it is required; Ensuring the safety of all items and materials whilst in the store that is, protecting them from, theft, damage and deterioration; Ensuring when necessary, that items issued from the store are packed so that they will not be damaged or caused to deteriorate whilst in transit to their destinations. 	
Stock Control	 Also known as <i>Inventory Control</i> comprises mainly the clerical and administrative functions of stores work. It involves: Ensuring that the right types and qualities of items needed for production, maintenance and distribution, are always available when required; Ensuring that stock is issued in the correct sequence, that is, "first in first out", so that "older" stock is not allowed to deteriorate by being kept for too long in the store, for instance because it has been hidden from view by more recently received stock; Maintaining records showing the "movement" of items into and out of the Store, controlling and monitoring those movements and maintaining full records of the items in the stores; Ensuring that the correct "stock levels" of the various items are set and are maintained, that orders and reorders are made (or requested to be made) in good time, and that what is ordered is received; Checking, counting or otherwise measuring stock to ensure that records are accurate and that no losses are occurring due to, theft, damage or poor storage; Pricing and valuing the items in the stores. 	

Receiving of Stores

The following control measures are recommended when receiving stores to ensure transparency:

- Stores items should be received and inspected by at least two members against the order specifications.
- Use Stores Receiving Voucher (SRV) which contains details of all items received when receiving stores.
- Fill and sign Stores Issue Voucher (SIV) at the time of issue.
- Payment should only be made upon certification that the delivered items or goods have met the order specifications.
- Serially numbered vouchers should be prepared for issue to the supplier as receipt of all items received, with a copy to the District Assembly for record.
- Any damaged or sub-standard items and occasions of short or over delivery should be properly documented with a record to the accounting department.
- The approving authority for writing-off any stores should be clearly defined and the quantity of stores involved and reasons should be recorded.

Issuing of Stores

For the issuing of stores, the following measures are recommended:

- Stores should only be issued upon production of serially numbered vouchers or job orders approved and signed by authorised staff.
- The stores staff should maintain a list of specimen signatures of the authorised members and the signatures on the vouchers or job orders should be checked against the list.
- Recipients of stores should acknowledge receipt on the voucher, a copy of which should be sent to the accounting department for record.
- Stores should be issued on a "first-in-first-out" basis, particularly for those items which have a specified shelf life. This ensures that stocks procured earlier are issued out before they get damaged.
- Stock balance records should be updated promptly upon each issue with details such as the date, reason of issue, voucher/job order reference and the recipient.

Handover of Stores

Stores staff is accountable for the safekeeping of the stock in hand. Hence, they should be required to conduct stocktaking exercises at specified intervals. If there is a change of staff, both the incoming and outgoing stores officers are recommended to:

- Check all items held in stock to ensure they tally with the records.
- If it is not practicable to check all items during the handover, the incoming officer should select randomly a number of items for checking, particularly those of high value.
- Any surpluses or shortfalls of items identified should be documented and reported to senior officers.
- The outgoing and incoming officers should sign a handover report for record purposes.

Module 9: Mainstreaming Crosscutting Issues

Introduction

This module discusses Gender, HIV and AIDS and Environment as crosscutting issues affecting effective delivery of water and sanitation services. The module will enhance the understanding of these issues and broaden the ability of WUAs to mainstream the issues in the water and sanitation services.

Objectives

By the end of this module, participants should be able to:

1. Demonstrate an understanding in mainstreaming cross cutting issues in water supply and sanitation programmes and activities.

Structure of each Study Topic

This module has three topics. Each topic begins with an introduction and objectives. The content contains a step by step outline of activities to be done, and the study material. A summary highlights the main points learned in each topic.

At the end of each topic there are facilitator's notes. These contain areas of emphasis and key words in the topic, the participants' assumed prior knowledge, estimated time allocation for the topic, methodologies, learning resources and additional information for reference by the facilitator.

Skills to be Acquired

It is expected that by the end of the module, participants will acquire the following skills:

• Mainstreaming cross cutting issues

Content

This module contains the following topics:

- Gender
- HIV and AIDS
- Environment

Topic 1: Gender

The gender mainstreaming approach considers that society and institutions must change ideas and practices in support of equal choices and opportunities. Thus, the gender mainstreaming practice has become a necessity due to paradigm shift in understanding the problem of inequality between women and men.

This topic aims at equipping participants with knowledge and skills on how to mainstream gender in water supply and sanitation activities. It also looks at the solution to the gender issues and concerns.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define gender
- 2. Describe gender mainstreaming
- 3. Identify gender issues and concerns in water and sanitation sector
- 4. Identify solutions to gender issues and concerns

Content

Definition of Gender

Activity 1.1

Step 1

Facilitator divides participants into buzz groups to define gender.

Step 2

Facilitator consolidates the responses and presents the definition.

Definition

Gender is socially constructed roles and responsibilities assigned to women, men, boys and girls in a given culture or location.

Description of Gender mainstreaming

Activity 1.2

Step 1

In a lecturette the facilitator describes gender mainstreaming.

Description

Gender mainstreaming is the process of integrating gender needs, issues and concerns in all programmes and activities in order to promote equality. It integrates gender concerns in the formulation, implementation and monitoring of policies, programmes, projects, processes, budgets, legal instruments and activities. It also involves changing institutional policies, programmes and processes so that they promote gender equality and not just having equal numbers of women and men.



Figure 10.1: Man and Women Collecting Water

Gender Issues and Concerns in Water Supply and Sanitation

Activity 1.3

Step 1

Facilitator divides participants into groups to discuss gender issues that impact on water and sanitation activities.

Step 2

Facilitator consolidates responses and presents gender issues and concerns in water and sanitation sector.

Gender Issues and Concerns

- Key decision making positions are dominated by men.
- Low participation of men in water and sanitation activities.
- Responsibility for collection of water rests in the hands of women and girls.
- Most water and sanitation committees are dominated by men
- Lack of gender disaggregated data.



Figure 10.2 Women voices should also be heard

Solutions to Gender Issues and Concerns

Activity 1.4

Step 1

Facilitator divides participants into groups to discuss solutions to gender issues and concerns.

Step 2

Facilitator consolidates the responses and presents solutions to gender issues.

Solutions

The following are some of the solutions to the gender issues and concerns:

- Encourage women and other disadvantaged groups to participate in decision making. Sensitize and encourage men to participate at all levels of management of water supply and sanitation projects.
- Sensitise communities that the role of collecting water is everyone's responsibility
- Involve women and other disadvantaged groups in the development and management of water supply and sanitation activities.
- Provide women and other disadvantaged groups with opportunities to play leadership roles in community based development of water supply and sanitation.
- Improve situations where women and other disadvantaged groups can easily access water and sanitation facilities.
- Educate women and other disadvantaged groups on water, sanitation and health situations

Summary

The facilitator should summarize the main points that have been covered, invite questions and emphasize on gender mainstreaming, key gender issues and concerns.

References

- 1. ESAMI Training Materials (1995) Gender Analysis in Rural Energy Planning and Environment Management, Arusha, Tanzania
- 2. MoGYCS (1999). Principal Secretaries Sensitisation Workshop Papers. Mangochi Malawi (unpublished)
- 3. MoGYCS (2002). Gender Training Manual, Lilongwe, Malawi.

Facilitator's Notes

Areas of emphasis

Gender issues and concerns affecting water supply and sanitation services

Key words

- Gender mainstreaming
- Gender concerns
- Gender issues

Assumed prior knowledge

The topic will build on the local knowledge that the participants have on gender issues such as how to share roles and responsibilities in their communities.

Methodology

- Buzz group
- Lecturette
- Brainstorming
- Group discussion

Time required: 1 hour

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 2: HIV and AIDS

Introduction

HIV and AIDS mainstreaming is vital in the proper management of water and sanitation activities. This topic discusses the process of mainstreaming HIV and AIDS in Water and sanitation programmes.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define HIV and AIDS
- 2. Outline the impact of HIV and AIDS in water supply and sanitation activities
- 3. Explain ways of mainstreaming HIV and AIDS in water supply and sanitation programmes
- 4. State importance of mainstreaming HIV and AIDS in water supply and sanitation activities

Content.

Define HIV and AIDS

Activity 2.1

Step 1

Facilitator asks the participants to brainstorm the definition of HIV and AIDS.

Step 2

Facilitator consolidates responses and presents the definition of HIV and AIDS.

Definition

HIV

Stands for "Human Immune-deficiency Virus". It is the virus that destroys the human immune (defence) system rendering the body vulnerable to other infections.

AIDS

AIDS is an acronym that stands for Acquired Immune-Deficiency Syndrome. It is not one disease, but a set of diseases. Not all people who develop AIDS suffer from the same disease, but there are certain unusual illnesses that occur very frequently in AIDS. That is why it is called a "Syndrome". This syndrome is caused by a virus which affects the body's immune system, making it liable to infections.

Impact of HIV and AIDS in Water Supply and Sanitation

Activity 2.2

Step 1

Facilitator divides participants into groups to discuss the impact of HIV and AIDS in water supply and sanitation activities.

Step 2

Facilitator consolidates the responses and presents some of the impacts.

Impacts

- Knowledge in water and sanitation management is lost.
- Households sink into poverty and this leads to over-exploitation of the natural resources including water resources.
- Caring for the sick limits women's participation in water and sanitation activities.
- Expenses for the sick impede household abilities to pay for water and sanitation services.
- Social cohesion is weakened and traditional participatory channels become dysfunctional.
- Perceived affected and infected face stigma and discrimination leading to a loss of self esteem.

Ways of Mainstreaming HIV and AIDS

Activity 2.3

Step 1

Facilitator divides participants into small groups to discuss ways of mainstreaming HIV and AIDS in water supply and sanitation programmes

Step 2

Facilitator consolidates the responses and presents ways of mainstreaming HIV and AIDS.

Ways

- Use of HIV and AIDS focal points.
- Use of training in various skills.
- Building structures for enabling high-level support.
- Use of research and impact/predictive studies.
- Establishment of HTC Centres.



Figure 10.3: HTC Centre

Importance of mainstreaming HIV and AIDS

Activity 2.4

Step 1

Facilitator asks participants to buzz in groups the importance of mainstreaming HIV and AIDS in water and sanitation activities.

Step 2

Facilitator consolidates the responses and presents the importance of mainstreaming HIV and AIDS in water and sanitation activities.

Importance

- Improve and sustain knowledge in water and sanitation management.
- Sustenance of natural resources including water resources.
- Increased women's participation in water and sanitation activities.
- Improved ability to pay for water and sanitation services.
- Social cohesion will be strengthened and traditional participatory channels will be functional.
- Reduced stigma and discrimination leading to enhanced self esteem.

Summary

Facilitator summarises the topic by emphasising on the impact of HIV and AIDS on water and sanitation and importance of mainstreaming HIV and AIDS. Facilitator invites questions from participants and clarifies them.

References

Malawi Institute of Education (1998). A student's handbook for Population Education in Malawi.

Domasi: Malawi Institute of Education.

Gill Gordon (1999). Choices; A Guide for Young People. MacMillan.

Domasi College of Education (2002). HIV and AIDS Awareness. Domasi: Domasi College.

Tabifor Henry, MD (2002). *The Dignity of Human Sexuality and the AIDS Challenge*. Alpha and Omega Publication.

Facilitator's notes

Areas of emphasis

- Definition of HIV and AIDS
- Impact of HIV and AIDS in water and sanitation
- Ways of mainstreaming HIV and AIDS,
- Importance of mainstreaming HIV and AIDS in water and sanitation.

Key words

HIV, AIDS, impact, importance, mainstreaming.

Assumed prior knowledge

Participants are aware of the modes of transmission, ways of caring and supporting the affected and the infected as discussed in topic one.

Methodology

- Buzz group
- Brainstorming
- Group discussion

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, writing pens, masking tape, handouts, file covers, shorthand notebook, LCD projector, audio visual equipment.

Topic 3: Environment

Introduction

Environment is key to sustenance of the availability and quality of water resources. However, environmental degradation is rampant in many parts of the country affecting the water resource including piped water supply systems. Any source of water has its own catchment area which needs protection.

This topic aims at equipping participants with knowledge and skills on how to protect respective catchment areas effectively.

Learning Objectives

By the end of this topic, participants will be able to:

- 1. Define catchment area
- 2. State the importance of catchment area
- 3. Describe factors that affect the quantity and quality of water from the catchment area
- 4. State malpractices that affect catchment areas
- 5. Describe the effects of a poorly managed catchment area
- 6. Explain the common methods of conserving, managing and improving catchment areas

Content

Definition of Catchment area

Activity 3.1

Step 1

Facilitator asks participants to buzz in groups the definition of catchment area.

Step 2

Facilitator consolidates the responses and defines catchment area.

Definition

A catchment area is an entire area from which raw water drains into water bodies.

Importance of catchment

Activity 3.2

Step 1

Facilitator asks participants to brainstorm the importance of catchment area.

Step 2

Facilitator consolidates the responses and presents the importance of catchment area.

Importance

Catchment area provides water for the following uses:

- Drinking
- Washing
- Agriculture/irrigation
- Industry
- Recreation
- Wildlife with food and shelter

Factors that affect quantity and quality of water from catchment areas

Activity 3.3

Step 1

Facilitator asks participants to buzz in groups the factors that affect quantity and quality of water from catchment areas.

Step 2

Facilitator consolidates the responses and presents the factors that affect quantity and quality of water from catchment areas.

Factors

- Size of the catchment area.
- Amount of rainfall.
- Amount of water lost through evaporation.
- Gradient (slope) of the land.
- Amount of surface runoff.
- Soil type.
- Vegetation.
- Land use Farming, forestry, buildings (houses and other structures).

Malpractices that affect catchment areas

Activity 3.4

Step 1

Facilitator divides participants into groups to discuss the malpractices that affect catchment areas.

Step 2

Facilitator consolidates the responses and provides the malpractices that affect catchment areas.

Malpractices

- Deforestation Removes vegetative cover leading to erosion, gullies, etc.
- Poor agricultural practices No contour and box ridges, ridges along slopes, too close to river banks lead to erosion and siltation of reservoir.
- Pollution Fertilizer use close to reservoir, toilets upstream of reservoir, poor waste management, effluent disposal leading to infected and dirty water.
- Encroachment Makeshift homes, school, etc boundaries into the catchment.
- Illegal developments.
- Wild bush fires.

The effects of a poorly managed catchment area and proper methods of conservation

Activity 3.5

Step 1

Facilitator divides participants into groups to discuss the effects of poorly managed catchment areas and common methods for conserving, managing and improving catchment areas.

Step 2

Facilitator consolidates the responses and presents the effects of poorly managed catchment areas and common methods for conserving managing and improving catchment areas.

Effects and Common Methods

Table 10.1

Effects	Common Methods
Bare lands on the catchment	
Silted up and dry rivers	Afforestation
 Reduced water amounts in reservoirs 	Trees in bare lands, along rivers, around
 Vegetation growth within the reservoirs 	homesteads
All these result in water supply shortages	 Proper agricultural practices such as

and poor quality water	 Ridges across slopes, following contours, box ridges, planting vertiver grass, use of manure, observing buffer zones, etc. Good sanitation practices Monitoring and control Form or use existing village level catchment management committees or form a catchment management committee under the WUA. Get trained and come up with control regulations/By-laws. Use existing local structures like local leaders, ADCs, VDCs. Community Policing

Summary

Facilitator summarises the topic by inviting questions from participants and clarifying them. He/she emphasises on the effects of catchment degradation and the effective methods to conserve, manage and improve catchment areas.

References

Kachuma Rosemary (November 18, 2009). Mpira Water Trust Training Presentation on Catchment Protection, National Water Development Programme (unpublished).

Facilitator's Notes

Areas of emphasis

- Definition of catchment area
- Effects of catchment area degradation
- Common methods of conserving, managing and improving catchment area

Key words

Catchment, conservation, degradation

Methodology

- Brainstorming
- Group discussion
- Buzz group

Time required: 1 hour 30 minutes

Resources

Flip charts, A4 photocopying papers, marker pens, masking tape, handouts, file covers, shorthand note book, LCD projector, audio visual equipment.

Additional information

Water within a Catchment

How water gets formed and move within our catchment

- Rain falls on bare grounds and runs off and drains into small streams which eventually join a river, lake.
- Some of the rain water infiltrates into the ground.
- Water that exists underground sometimes comes out to the ground to form rivers.
- Generally water flows to lowest parts of the catchments, whether surface or underground water i.e. the water flows to rivers and lakes.
- Flowing back of water to rivers, lakes recharges the volumes of the existing water bodies.