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REPORT ON THE

WATER AND SANITATION WORKSHOP

FOR RURAL WATER & SANITATION
COMMITTEES

HELD AT

MLILWANE WILDLIFE SANCTUARY

19/10 - 03/11/89

MBABANE
SWAZILAND

DECEMBER, 1989

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ISBN 11328

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TRAINING SCHEDULE

When: Last week of October, 1989
30th October - 3rd November

Resource Persons:

1. Patrick Dlamini
2. Zeblon Simelane
3. Gcina Dlamini
4. Henry Zikalala
5. Khanyisile Dlamini
6. Richard Mamba
7. Dudu Dube
8. Precious Dlamini
9. Melven Mayisela

Venue: CODEC / MLILWANE

No. of Participants: 60

MONDAY	<ul style="list-style-type: none"> - What is a Pit Latrine - Components of and their function - by R. Mamba 	K	<ul style="list-style-type: none"> - Role/Responsibility of a Water and Sanitation Committee - by Z. Simelane - Coordination and linkage of Water and Sanitation activities - by D. Dube 	H	GROUP DISCUSSION
TUESDAY	<ul style="list-style-type: none"> - What the Ministry of Health contributes towards Water and Sanitation projects and the MOH procedure in implementing projects - by Philemon Dlamini 	A	<ul style="list-style-type: none"> - Choosing a Water and Sanitation Committee and the importance of having a Constitution - by Z. Simelane 	C	GROUP DISCUSSION
WEDNESDAY	<ul style="list-style-type: none"> - Water and Sanitation Committees Funds - Savings and Fixed Deposit Accounts - by Z. Simelane 	E	<ul style="list-style-type: none"> - Operation and Maintenance - by Z. Simelane 	N	GROUP DISCUSSION
THURSDAY	<ul style="list-style-type: none"> - Diseases associated with poor sanitation and unsafe water supply. - Disease Transmission - by Patrick Dlamini 	R	<ul style="list-style-type: none"> - Planning and Implementation of projects - by R. Mamba 	U	<p>Refuse and Refuse Disposal - by Patrick Dlamini</p> <p>GROUP DISCUSSION</p>
FRIDAY	<ul style="list-style-type: none"> - How a pit latrine helps in disease prevention. - by Patrick Dlamini and Richard Mamba 	B	<p>GROUP DISCUSSION (PROBLEM SOLVING) AND CLOSURE OF WORKSHOP</p>	L	

LIST OF PARTICIPANTS

<u>NAME</u>	<u>DESIGNATION</u>	<u>PLACE</u>
1. John Khumalo	Chairman	Kutsimleni
2. Simon Dlamini	Member	Ludzeludze
3. Albert Dladla	Member	Tsambokhulu
4. Dan Maziya	Member	Kalanga
5. Ephraim Kunene	Secretary	Matseta
6. Petros Mtjali	Chairman	Matseta
7. Sani Cindzi	Member & Secretary	Boyane
8. Busisiwe Dlamini	Member	Ntondozi
9. David Vilakati	Member	Kashoba
10. Maphikisane Maziya	Chairman	KaNgcamphalala
11. Leo Masilela	Secretary	Luyengo C
12. Sipho Dladla	Chairman	KaPhunga/Dvumbe
13. Amos Dlamini	Member	Ndlembeni
14. Christopher Dlamini	Member	Ndlembeni
15. David Shongwe	Member	Ndlembeni
16. Thomas Shabalala	Member	Ndlembeni
17. Philip Maseko	Member/Sch. Comm.	Kutsimleni
18. Philip Ngozo	Chairman	Enceka
19. Dingane Maseko	Member	Esitseni
20. Bاندlakhulu Magongo	Member	Elangeni
21. Mrs Saray Ndlovu	Chairperson	Entsukumbili
22. Isaac Dvuba	Member	Esitsheni
23. Philip Mavuso	Secretary	Emvembili
24. Emphraim Cindzi	H/A	
25. Petros Ntsini	H/A	
26. Edward Zwane	Water minder	Mahamba Mission
27. Lindiwe Mdluli	Water minder	Mahamba Mission
28. Hezekiel Yende	Treasurer	Mbukwane
29. Simon Sitsebe	Water minder	Maseyisini
30. Andrews Vilakati	Chairman	Emvembili
31. Esaw Masuku	Chairman	Sithobela
32. Willie Mbhamali	Chairman	Othandweni
33. Khanyisile Mamba	Member	Khalangilile
34. Alfred Nhlabatsi	Chairman	Khalangilile

WATER SANITATION

INTRODUCTION:

Importance of water:-

1. We use water for drinking, domestic purposes, agricultural transportation and power. i.e. irrigation, sewerage disposal, ships crossing the sea and electricity.

Importance of our environment:-

1. We reproduce in our environment
2. We produce food
3. We live

Price Paid when environment is polluted

1. Diseases are spread, people get sick and maybe die.
2. Environment look dirty and smells develop. Diseases like typhoid, cholera, childhood diarrhea etc.

Therefore: What is Health

Health is a state of complete physical, mental and social well being and not merely the absence of disease or deformity.

CONTROL MEASURE TO ACHIEVE THE ABOVE

PRIMARY - maternity and childhood diseases
- control of communicable diseases
- land, water and atmosphere sanitation
- nutrition etc
- accident control

SECONDARY - medicare for all
- medical - mental

TERTIARY - physical - environment

HOW TO KEEP ENVIRONMENT CLEAN AND SAFE

This comprises of safe clean water and a safe clean environment.

WATER:

Sources of water

1. Underground - very safe springs and boreholes
2. Surface - not very safe rivers, lakes and dams
3. rain water - safe, if collected from clean surfaces
4. reclaimed water - not safe until thoroughly treated.

Underground - very safe if protected and used properly or collected in clean containers and stored in clean vessels.

Surface - needs treatment

Rainwater - clean surface for collection and storage

Reclaimed water - could be bacterial contaminated so needs further treatment.

Qualities of water: clear, tasteless etc.

DISEASE OF DEFECTIVE SANITATION

Many diseases either water-borne, water-washed and water-based categories depend on access of human wastes to water or people's mouths. These may be reduced by measures aimed at improving waste disposal as well as water supply.

Waste Disposal Methods

Solid and liquid waste

Solid : Refuse etc
Burning (incineration), burial, composting and landfill method.

Liquid Waste

- pit latrines
- bucket latrines
- Aquu privy etc

These means of acquiring a safe water supply and clean and safe satisfactory environment will enable us to live happily.

LINKAGE OF WATER SUPPLY AND SANITATION

Objectives:

- for reduction of water related diseases and other water contact diseases
- for effective utilisation of water supply systems and corresponding sanitation facilities (better O & M practices).

What is safe/clean water

It is water that is free from contamination by: faeces
dust
insects
animals
man

How can we ensure that water is safe

- o protecting it
- o building latrines
- o cleaning environment
- o Treating it (Jik)
- o boiling
- o covering (storing properly)
- o collecting it in clean containers
- o sieving it

Start here:

What is cleanliness/health

- clean water
- clean environment]
- clean body] healthy
- clean mind]

What are some of the things we need to do in order to obtain the above

- o Toilet
- o Refuse pit
- o Clean or safe water (protected)

What is the use of a latrine

- o Prevents diseases associated with dirt and faeces e.g. diarrhoeal, cholera, typhoid, bilharzia etc.
- o By preventing flies from getting to the faeces.

What is the use of a refuse pit

- o Collect all the dirt at one place

What can be done to refuse

- burnt
- buried
- used as decoration

How can we ensure that we always have a clean safe and portable water

Proper maintenance of system and latrines by:-

- o fixing of leaking pipes (airborne fuel cost)
- o cleaning drains (malaria)
- o keep the source fenced at all times
- o fix leaking taps (cost maintances)
- o keep animals away from standpipes by providing troughs from run-off water.
- o clean filters
- o cleaning latrines

Therefore: Getting maintenance is important to pay for some of the above including water minder.

- o keep servicing things for better operation.

WHAT IS A PIT LATRINE

by

R. Mamba

A pit latrine is a place where people can urinate and defaecate in privacy and which provides protection of the environment from contamination.

A pit latrine consists of:-

- (i) a PIT; i.e. a dug hole in the ground
- (ii) a SLAB with VENTPIPE; i.e. floor of latrine and ventpipe;
- (iii) a SHELTER i.e. to provide protection for the user.

The Pit

The pit isolates faeces from the environment and prevents contamination of the soil and water. In this way, it prevents the spread of disease by keeping germs in excreta away from humans, animals and insects.

A pit is a hole dug into the ground. It has dimensions : length, width and depth. At the top, the pit may have a BASE to support the SLAB. A pit may also have a LINING, in cases where the soil is loose and tends to cave in. If the pit walls will not stand on their own, a LINING prevents them from caving in. The LINING is installed after the pit is dug. A properly constructed pit will last about 10 years.

The Slab

The slab is the floor of the pit latrine or privy. The slab covers the pit. It has a hole through which to defaecate and another hole, a vent hole.

The venthole is where a vent-pipe is inserted. The vent pipe carries away odours from the pit to the atmosphere. In this way it reduces the odours. A seat may be installed over the defaecation hole.

The Privy Shelter

The privy shelter is a screen or structure that gives the person using a privy privacy. It may also protect the USER from the weather.

CHOOSING A WATER AND SANITATION COMMITTEE

1. Community mobilization

A thought or idea may arise through an individual or individuals which the whole community may decide to adopt and look for ways to go about it and hence make it a project.

For it to be successful, it is usually through the work of highly influential & motivated person or persons. A committee may then be chosen to do the work.

Aims/objectives be defined.

2. Who can be a member

1. honest, motivated and active person
2. have good leadership qualities
3. can keep in confidence secrets of the committee
4. a humble person and able to speak well with people
5. a person who perseveres
6. should have respect of people or his/her community
7. be bold i.e. without fear.
8. have compassion
9. have good knowledge of his/her community

3. TERMS OF OFFICE OF MEMBERS should be well defined and each members' job be well-defined. A committee or member of a committee which/who does not function well it should be replaced. Members may re-elected into a committee.

4. SHOULD HAVE A CONSTITUTION

Define office barriers, how many they should be. Election of members. Terms of office and duration.

Members should be evenly distributed over the area

DISEASES RELATED TO POOR SANITATION AND UNPROTECTED WATER SUPPLY

by

Patrick Dlamini

There are four things necessary for the disease cycle to be completed or to occur.

- I. Susceptable host
- II. Pathogenic organism
- III. Transmission agent
- IV. Mode of entrance
- V. Source of Pathogens

I. Susceptible Host:

Men is the susceptible host of our concern for our purpose. There are yet many other animals which are intermidiate host in other instances. The body suffer once Pathogens have got a mode of entrance into it. The body is formulated by many organs which coordinate their functions resulting to the existence of the organism or body. Entrance of Pathogens cause distruction of body cells and results to malfunction of body systems.

II. Pathogenic Organism:

There are two type of Pathogens.

(a) Macro (b) Micro.

Those which can be seen by the nacked eye and those which can be seen through the aid of microscopes respectively. Macro - are mostly Parasitic Pathogens. Micro - are mostly including bacteria, viruses, Protozoa Clamadia and rickebia.

These are also Poisonous chemicals and sharp foreign bodies. All the above cause illness when enter the body.

III. Transmission Agents:

These are the vehicles by which the pathogens are transported from the source to the susceptible host. Example of such agents are water, air, wind, food, equipments, insects, animals or direct contact.

IV. Mode of Entrance: This is the method and the parts of the body through which the pathogens enter. e.g.

- (a) mouth - digestive system and spread to the whole body
- (b) nostrils - respiratory system and spread to the other parts of the body.
- (c) skin - excretory system and aggravate to complication and spread to the other parts of the body.
- (d) Sexual Organs - reproductive system complicate and spread to the other parts of the body.
- (e) Eyes - lead to blindness
- (f) Ears - lead to deafness

V. Source of Pathogens

It may be affected organism or water or food or article or air etc.

TRANSMISSION CYCLE

Prevention

It is possible by cutting the cycle. There are many ways of achieving this:

1. remove the host from the cycle
2. remove transmission agent
3. remove the source etc.

PROJECT PLANNING, DESIGN AND IMPLEMENTATION

by

R. Mamba

PRE-LECTURE QUESTIONS TO PARTICIPANTS

At home, when you are to have a traditional wedding or feast what do you have to do?

There were several responses some of which are as summarised below

(i) I would prepare for it

- let my family and family relatives know about it
- work out how many people would attend it
- then, work out a list of all material requirements

(ii) Plan, how it would go and workout who would do what job (the participants' responses were good and correct).

Similarly when one has to start a project such preparations are necessary. Before a project is being undertaken it should be known how long it should take; who is to do what?

PROJECT PLANNING

First of all a project has to have a definition. It should have its aims/objectives well spell-out.

TIME FRAME

Funds, government or non-government, used in Water and Sanitation projects budgetted for use within a stipulated time frame. Therefore if the work is not finished by that time period, the funds become frozen.

Some donors pay for the works after completion of a system especially water systems. That being the case who shall have to pay for the completion of the system that failed to be completed in time? Such a system may then be abandoned or suspended until another donor is found to complete it.

One may ask, "What happens in a case where a donor is not found"? I am sure you can answer that question yourselves.

I have seen a system which even today (28/9/89) since 1984, has been abandoned.

CONSTITUTION

For any communal project, it is important to have a committee to oversee the work. Experience has shown that a Water and Sanitation committee has to have a constitution, without which communal projects have crumbled. Issues pertaining to finances, defaulters, committee members not attending meetings have contributed to the downfall of many projects.

Committees have failed to submit financial statements - who knows, may be that is why people become reluctant to pay their monthly contributions. Committee members have failed to honour meetings, and other committees are now run by two members or fewer than the initial number. Homesteaders have defaulted in paying their monthly contributions. In the Constitution such items must be dealt with thoroughly. It should be stipulated what measures are to be taken to defaulters; Committee members who do not honour meetings. It should also stipulate when should the Committee submit financial statements to the community. Who would, in his right mind, contribute his/her money to where he/she does not get a feedback on the use of the money? Another thing that is important and need to be included in the constitution is the term of office of committee members.

WORK DIVISION

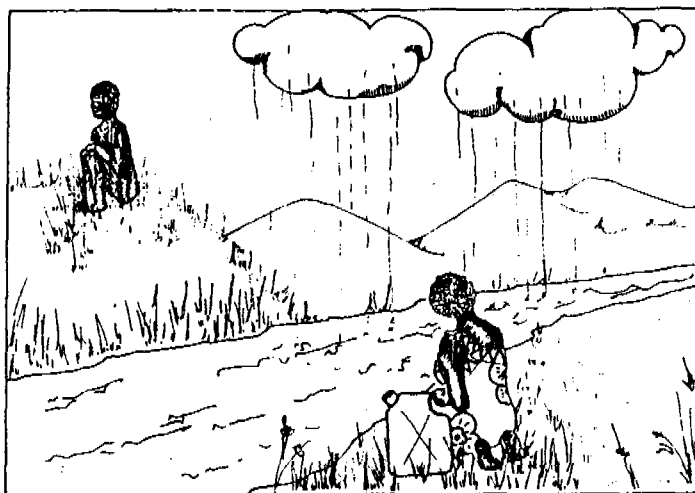
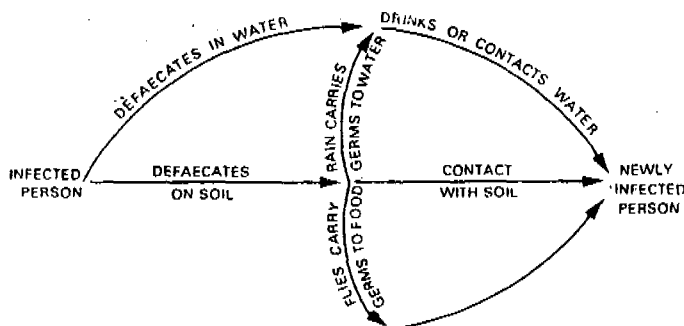
The job activities should be divided among the members of the community. Each member has to do a particular job. This helps in getting the work to be done.

THE PURPOSE OF A PIT LATRINE

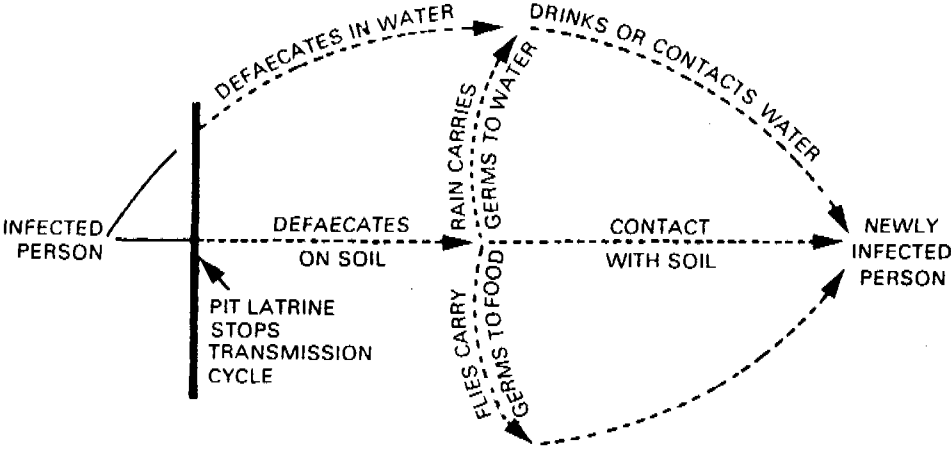
It has been discovered through research that many of the most important diseases of mankind, especially diarrhoeal diseases, are excreta-borne. Germs causing these diseases, diseases such as: cholera, typhoid fever, paratyphoid fever, dysentery, hookworm disease, and roundworms are harboured in excreta of persons suffering from or acting as carriers of these diseases. Transmission of these diseases occurs when germs find their way into water, soil and food, and, in the case of hookworm, to soil.

When food, soil, or water so contaminated is ingested by humans, they contract these diseases. Bilharzia is contracted when a person comes into contact with water contaminated with excretar that harbours snails infected with the bilharzia parasites. Hookworm disease is contracted through contact with SOIL contaminated with excreta that harbours hookworms.

It is therefore very important to PREVENT or STOP excreta from entering FOOD and WATER that is meant for human consumption or from contaminating the SOIL - otherwise these diseases may SPREAD to very high levels such that it would be VERY DIFFICULT TO CONTROL THEM. The best method to do this is to ISOLATE faeces so that the infectious agents or germs in them cannot possibly get to a NEW HOST or another person. This can be done by PROPER DISPOSAL OF EXCRETA or FAECES. Indiscriminate DEFAECATION should come to an end, everybody should have ACCESS to and USE a LATRINE.



In rural areas, the use of a pit latrine may be a very important way to break the cycle of FAECAL-BORNE diseases.



FORM 1

ASSESSMENT FOR COMMUNITY READINESS

Name of Community Region

Name of Chief

Name of Indvuna

Has the community been resettled?

(a) Source of initial request

(b) In your opinion does this reflect the wishes of the majority of the community? why?

.....
.....
.....

Content of request:

No. of homesteads

Estimated population

No. of schools

No. of clinics

R.D.A. (yes/no)

Date of follow-up request.....

What does the community perceive as its needs/problems?

(a)

(b)

(c)

(d)

What does the community perceive as the most important development projects. In order of priority?

- a)
- b)
- c)
- d)

7(a) Can a water supply and sanitation project help solve any of the needs/problems? (yes/no)

(b) How/why?

8. Has the community had any projects that involved community participation? YES NO

If so, how was the participation organised?

.....

9. What was the nature of the projects in which the community participated before?

.....

10. Did the community contribute anything towards the implementation of this project? YES NO

If so, how were the contributions made?

in cash

in kind
 (specify)

.....

Was there any other external contribution to this project?

YES NO

11. How long did it take the community to complete these projects,

and why do you think it took this amount of time to complete?

<u>Project</u>	<u>Period</u>	<u>Reason for time taken</u>
a)
b)
c)
d)

12. Were there any projects experienced in these projects?

YES NO

If so, what was the nature of the problems?

.....
.....

How were they solved?

.....
.....

13. Who requested the previous projects

14. Have there been any government agencies assisting in previous projects? YES NO

If so, which agencies?

<u>Project</u>	<u>Agencies</u>
a)
b)
c)
d)

15. Are there any of the previous projects still operating in the community?

If not, why?

.....

16. What other projects are currently operating in the area?

Project	External Contributions	
	YES	NO
a)
b)
c)
d)

17. How were these projects identified and prioritized.

.....
.....
.....

18. Will the community still be able to contribute towards a new project? YES NO

If so, in what manner?

19. Are the community leaders willing to support this project? YES NO

If not, why?

20. Are there any active committees/organizations in the area? YES NO

If yes, what are they? a)
b)
c)
d)

Do these committees/organizations coordinate with one another?
YES NO

20. Are there any local artisans in the area? YES NO

21. What are the major community activities in the area in any year?

	<u>Activities</u>	<u>Time of year</u>
a)
b)
c)
d)
e)

22. What is the major source of household income in the community?

.....
.....
.....

Is the income regular (monthly) or seasonal?

regular seasonal

23 What are the most common diseases in the area?

a)

b)

SISWATI REPORT

OFFICIAL OPENING SPEECH

OCCASSION: Water and Sanitation Workshop

VENUE AND DATE: Emlilwane Wildlife Sanctuary. 30th October, 1989.

BY: Nester Thembi Shongwe; Acting Chief Nursing Officer

1. SINGENISO

Angibonge Malangeni kutsi belitiko letemphilo nelibandla lemanti bangimeme kutsi ngite lapha. Ngiva ngimnandzi ngoba nami ngingulomunye lophuma emakhaya lapho, loku lenitewukwenta kubalulekile kakhulu.

2. UMGOMO WALOMHLANGANO - SIKOLO

IFAKA:

- 2.1 Kufuna noma kunxusa ngekutitfoba, kuqinisa kusekela (emakomiti) kwemabandla labekela emanti nekuhloba emakhaya.
- 2.2 Kuqinisa, nekusekela baholi emakhaya mayelana nekutfutfukisa umgomo welitiko letemphilo lotsi bonkhe lemakhaya kufanele babe netindlu tangasese (imithoyi) futsi batisebentise.
- 2.3 Kwandzisa imiti lenetindlu tangasese emakhaya
- 2.4. Kufundzisa ngemanti, nekuhloba emakhaya nasemmangweni.

3. KUBALULEKA KWALOMHLANGANO SIKOLO

1. Uhlanganise bantfu labavele kulolonkhe leli la-Mswati. Phela intfutfuko isho kutsi wonkhe wonkhe umuntfu akatentele lutfo ayedvwa noma ahlanganyele nalabanye bantfu.
2. Utsintsa emasiko nebuve betfu, njengekuba kutawukukhulunywa, ngemanti, ngemthoyi, nekuhloba, (nekuya ngasese).

A. EMANTI

- (a) EmaSwatini bekubalulekile kutsi kungangcoliswa emtfonjeni; noma nase utatekile uyekukha emanti kwakutsiwa ungayi ngenhla kwalapho kukhiwa khona emanti, umane uye ngentansi.

Ingani phela bekwentelwa kutsi noma ngabe seliyana tikhukhula tingaletsi kungcola lapha emantini ladliwako

Kantsi manje kutsi ungatikhululi ngenhla kwesiyalu (umtfombo wemanti) sekulukhuni ngoba sekwaba khona imiti lesedvute lengenhla kwemitfombo. Umuntfu natikhulula ngentansi kwalapho akha khona yena, kuyenteka kanengi kutsi aye ngenhla kwalapho labany bakha khona.

(b) Emanti abalulekile futsi akuphila kwebantfu.

(i) Phela ingati nemtimba wetfu wakhiwe ngemanti

(ii) Emanti: sigeza ngawo
: siwasha tintfo tetfu ngawo
: sipheka ngawo
: sinatsa wona

Ngakoke asiwagcine ahlobile.

B. KUHLOBA

Sive seMaswati sibantfu labatsandza kuhlala bahlobile.

Ase ucabange emakhaya esintfu.

- (i) Bekushanyelwa emabala njalonnjalo
- (ii) Kuyilwe tindlu uze utibuke lapha esiyilweni
- (iii) Kusindvwe etindlini uze uphume nasegumeni.
- (iv) Bonkhe busika kubonakale kutsi tindlu nemaguma kugigiwe
- (v) Uma uya ngasese wawuhambisisa ungayi nje eceleni kwemuti. Manje loku sekulukhuni ngoba imiti seyihlalelene kakhulu, wesutsi ukhwesha kakho bese ufika kulomunye umuti.

4. KUVIKELA TIFO

Kunatsa emanti lahlobile, nekuhlala ekhaya lelihlobile, unendlu yakho yangasese, kuvikela tifo letinyenti njengetifo tesisu, umsheko, nemtfundza ngati.

Phela emanti langakahlobi kanye nemangcoliso kuyahambelana ekwandziseni tifo. Ase ubheke nje:

4.1. Uma utikhulula nje esigangeni kufika imvula ikhukhule lamangcoliso ifake emantini ekunatsa. Uma lamangcoliso

anesifo, lomunye umuntfu sewutasitfola lesifo emantini; ingani phela emagciwane ekufa, kabonakali ngemehlo ubona nje kungatsi emanti ahlobile.

4.2 Timfuyo tetfu; njenge tinkhomo netingulube tifike emangcolisweni tidle, sewutsi uyahlaba ukhandza umpheme. Ake ucabange um uyitsengile lenkhomo sekufika betemphilo batsi iyagula, inyama yayo ayilahlwe - hhawu kulahlekelwa yimali lengaka.

Timfuyo tetfu letimnandzi kangaka nato sesenta kutsi tidle emangcoliso. Kubi loku. Asikuvikele konkhe loku nine bekunene. Ngekubheka kwami lapha bekunene labatesifundzisa eqinisweni batesikhumbuta nje buntfu betfu.

CONCLUSION/SIGCINO

Malangeni ngitsandza kugcina ngekutsi

1. Maye nine nibalulekile ngekutfo nali litfuba lelihle kangaka, akusho ngiyanibongela.
2. Lokukhetfwa kwenu kusho kutsi laba labanikhetsile baya netsemba, ngakoke sebentani kakhulu nigabajabhisi. Ekusebenteni kwenu kufanele kutsi:
 - (i) Nisebentisane kahle njengekomiti, nihloniphane, nibonisane etintfweni tonkhe, uma kukhona lokunixabanisako, hlalani phansi nikucatulule loko, ningavumeli tinhlebo tinehlukhanise.
 - (ii) Niqhubeke njalo; lomsebenti we Nkhosi ungawi etandleni tenu.
 - (iii) Niphume lapha nati kutsi; uma konakele kulomsebenti wenu nitawuphuma niye kubani, kanjani.
 - (iv) Bese nitibekela umgomo, khona nitekwati kukala imphumelelo yenu niqhubekele embili.

Asibonge kulelibandla lemnotfo langesheya (European Economic Community), libandla lakamhlaba letemphilo (WHO), kuba basiphe timali tekwenta lomsebenti lositsintsa kangaka. Ngiphindze ngendlulisele kubonga kwetfu eBandleni leManti kanye nelitiko letemphilo.

Ngalawo mavi sengiyavula lomhlangano-sikolo. Inkhosi inisite inihole kuko konkhe lenitawuhlangana nako.

UMSEBENTI WEKOMIDI YEMANTI NEMITHOYI

1. Kuphatsa kusetjentiswa kwemanti
 - a. njengekubona kutsi bantfu kabawasheli empompini/etimpompini.
 - b. kuvikela budlabha ekusebentiseni emanti
 - c. kuhloba/kuhlanteka kwemtfombo, kudzingeke kutsi kujutjwe tjani/umena
 - d. kulungisa lokonakele emantini njengetimpompi, emaphayiphi, nephampi.
2. Ngemahlahlandlela entfutfuko emangweni
 - a. kubona kutsi wonkhe wonkhe emangweni unemthoyi futsi awusebentise kahle
 - b. kubona kutsi bantfu basebentisa imithoyi kahle, ngendlela lehlobile.
3. Kubutsa nekugcina imali eBhange
4. Kukhokha tindleko tadizili nobe gezi

Lubambiswano lolukhona emantini nemthoyi

1. Ngumgomo waHulumende lobekiwe
2. Emangciwane latfolakala emakakeni nasemchameni ngiwo kanye longcolisa emanti
3. Emanti nekuhloba kuyimphilo

(FROM PARTICIPANTS)

- Umthoyi kufanele kutsi uhambembili
- Emanti nemthoyi kubalulekile kutsi kuhambe kanye kanye; Emangcoliso ayagcineka emthoyi khona emagciwane lakuwo angetungcolisa emanti
- Tifo letinyenti lakaNgwane letibulala linyenti lebantfu titifo temsheko, leti kutifo letivikelekako ngekuba nemthoyi nemanti lahlobile .

- Ikomidi, Bagcugcuteli nabo bonkhe labaphatselene nemphilo kudzingeke kutsi babambisane ekwakheni imithoyi nekwakhela emanti.
- Hulumende, ngekubona kutsi emanti odwana akakwati kuvikela tifo kepha emanti ahambisana nemthoyi uphephisa nobe uvikela imphilo yebantfu etifeni, ngakoke umthoyi sewente wabangumgomo wekutfola emanti.

Kubekwa nekusebenta kwekomidi

Kucala

Injongo
Tincomo
Ikomidi

Bantfu labangakhetfwa kukomidi

1. Lokhutsele, ngato tonkhe titfo temtimba abe nenshisekelo
2. Abe nelikhono lokuwuphatsa lomsebenti sibonelo: kukhuluma nebantfu
3. Abe ngumuntfu lotsembekile
4. Akwati kugcina tindzaba, noma timfihlo lokusho kutsi abe nesifuba.
5. Umuntfu lotfobekile
6. Umuntfu lobeketelako

INDLU YEMTHOYI

- o Singena khona
- o Siyafihleka uma sitikhulula
- o Iyavikela emakhateni, Emoyeni, Emvuleni

LITJE

Sihlalo - kuhlala unetsetele

Sivalo sesihlalo - kumbonya khona emangcoliso angatohlala abaleni. Imphungane Ingakhoni kuphuma.

LITJE

Litfwala sihlalo
Litfwala umuntfu longena emthoyi

UMGODZI ugcina emangcoliso

SHIMELA NAFENISI

Kukhipha liphunga lelibi lelingatsandzeki
Shimela ngaleny indlela uyaphefumulisa, sisefo, sivimbela
imphungane kutsi ingaphindzi iphumele ngephandle, uma isuka
emangcolisweni.

Tindlela kudla lokungcola ngayo

1. Titja letingcolile
2. Kudla lokungakambonywa
3. Likhaya lelingcolile (likhishi)
4. Kungagezi tandla ngaphambi kwekudla

Committee cont 2nd PAU

5. Lohloniphako
6. Umuntfu lonesibindzi
7. Lonesihawu
8. Abe nelutsandvo
9. Lonelwati ngemihambo yesidodzi

Bumcoka bekubeka sikhatsi sekomidi ehhovisini

1. Kute umuntfu ente umsebenti ngemdlandla angate adzinwe
2. Kute lomuntfu atohlala atsembekile
3. Kute kukhoneke kutsi bantfu bakhishwe ekomidini uma
angasasebenti kahle.

Emalunga Ekomidi

- o Linani likalwa linengi lebantfu
- o Kube nemalunga ekomidi
- o Ikomidi ikhetfwa emalungeni lanenjongo yinye. Kute wonkhe
umuntfu atonetiseka.

Sikhatsi sekomidi kucala umsebenti

1. Emva kwekuhlelisa
2. Sekucala kukolekwa sikhwama semali
3. Kwakhiwe imithoyi

Wednesday

Timali
Sive sisebenta kanjani

Litje lemthoyi litfolakala njani

Timphendvulo

1. Ngeva kutsiwa ematje ayatfolakala etiko letemphilo
2. Ngekubonana nemuntfu wetemphilo
3. Ngatitsengela tinsimbi, nalokuhambisana nalo
4. Ngeva ngebagcugcuteli ekliniki futsi indlela yekulakha.
5. Indzawo yekutitfuma ngekweswelakala kwayo
6. Ema volontiya asifundzisa ngekwakhiwa kwemthoyi

Emanti Nemthoyi

1. Indzawo inawo yini emanti
2. Indzawo itawufakelwa yini emanti
3. Bantfu bayasibona yini sidzingeko
4. Sisebenti saHulumende siyasibona yini sidzingeko sekwakha imithoyi.

Tindlela Tekusebenta

1. Imihlangano
2. Likomidi

3. Ema Fomu lagcwaliswako, yemiti lanemithoyi, naleyifunako
4. Kukhetsa indzawo yekwakhela
5. Kukhetsa bantfu labatawukwakha
- 5(a) Kulayisha sihlabatsi
- (b) Kulayisha semende
- (c) Kunikela ngemanti ekwakha
6. Bagcugcuteli bayakala imigodzi, Takhamiti timba imigodzi yato
7. Akhiwe ematje, bese ayobekwa lapha sekumbiwe khona umgodzi.
8. Umnikati welikhaya uyatakhela indlu yemthoyi.
9. Umnikati welikhaya ukhipha E10.00 kuHlangabane naHulumende.

Ikomidi yinye

Yemanti Nekuhloba

Timali Tekusebenta kanye netindlela letifika ngato

1. Ngesicelo lesifakwe indzawo
2. Siphiso lesichamuka kulamanye emave
3. Ngekuvumelana naHulumende takhamiti, tibambisane ngemandla (kumba imisele, nekubhaka titini telithange).

TIMALI

1. Lechamuka ngephandle (siphiso)
2. Ngulekolekwa sive esikhwameni saso
 - (a) E100.00 imali lengatsintfwa, itokulalela kakhulu. Lemali ifana nenhlanhla.
 - (b) Imali yekubhadala tindleko (libhuku lelehlukile)

Sive sisebenta kanjani

1. Siyatitsengela ipompi
2. Siyatibhadalele kulungisa impompi
3. Siyatitsengela tintfo letephukile
4. Siyatibhadalela, pump attendant
5. Siyatimbela imisele
6. Siyati koleka timali tetikhwama letimbili
7. Siyatikolekela imali ye pump ayingeni emalini yesikhwama.

8. Siyasita kukoleka imali yemithoyi
9. Siyatikolekela imali yekubonga umsebenti,umphindze luhlelo lwakhiwe ngiso sive.
10. Kugadza kutsi ikomidi isebenta kahle yini?
11. Sive sikwati kulungisa tinkinga tekomidi.

Ikomidi

- CHAIRMAN - Kulungisa nekulandzela imihlangano
- TREASURER - Ugcina emabhuku etimali kanye netimali
- SECRETARY - Ugcina tinkhulumo emabhukwini letitawubuketwa ngesikhatsi lesitako
- IKOMIDI - Yonga timfihlo tekomidi
Ikhapha tindzaba ngesikhatsi sato
Ilungisa timpambosi tetinjongo

- Water attendant - Kugadza kuhamba kahle kwetintfo
- Kuhlobisa imigwaco yemanti
- Kunciphisa kamosheka kwemanti
- Kuchumanisa nebemanti (Rural water)
uma kunenkinga lengetulu kwemandla akhe
- Ugadza bantfu labagangako ngemanti.

Rural Water Wentani?

1. Ukhapha cwephesha lotakusita
2. Uletsa imaterial yekwakha
3. Ufundzisa bantfu labatawusala basebenta emangweni
4. Uyahola kutsi sive siwugcine njani lomsebenti

Kuvulwa kwemsebenti

1. Kumenywa tonkhe tihlobo
- labanye Boshifi
2. Kunikwa letinye tigodzi kutsi tikope

Lokulungiswako

- kudla
- siphandla salovula umsebenti
- sipho salabasinike imali yalo msebenti
- sibongo kulaba bebaneluleka kulomsebenti

Umgidvo uyalungiselelwa

- watisa bantfu
- uncoma lilanga
- tidzingo temgidvo
- kuchubeka umsebenti

Kuhlelebisa umsebenti

1. sikhatsi - lesijutjiwe

- TIDZINGO:
- Komidi
 - imali/sikhwana
 - Bantfu
 - Umgomo
 - tintfo tekusebenta
 - Umtsetfo wesisekelo
 - kuhleliswa
 - imvumo
 - imali yemsebenti
 - umtfombo/siyalu
 - lwati

UMTHOYI

(a) Yini umthoyi

Titfo Temthoyi

- (i) Umgodzi
- (ii) Litje (lelinetimbobo letimbili):-
 - (a) kwendlulisa emangcoliso
 - (b) imbobo yashimela
 - (c) (sihlalo) + nesivalo sakhona
- (iii) Indlu kanye neluphahla
- (iv) Ngushimela lonesisefo etulu

(i) UMGODZI

-uyakalwa ulinganiswe nelitje bubanti, ushone phasi 2.5
wemamitha nendzawo lapho utawumba khona sibonelo emanyatselo
kusuka ekhaya emanyatselo lasikhombisa

TINDLELA TIFO LESITITFOLA NGATO

1. Umlomo, sikhumba, emehlo, timphumulo, naletinye titfo temtimba

TINTFO LETIBANGELA KUFA

-Emagciwane lahamba ngemoya, ngemanti, ekudleni nangaletinye
tindlela.

TINDLELA LEKUHAMBA NGATO

Emanti (a) ngekunatsa
(b) ngekutsintsa ngesikhumba uma uwasha, ugeza uwela umfula - e.g. cholera, bilharzia

Umoya - Umphefumulo, kutsimula, kukhwehlela

Kudla - Tandla e.g. umsheko

Emehlo - Kutsintsana

Kutsintsana kwebantfu - lukhwekhwe

Tindlela emanti langcola ngayo

1. Ngetikhatsi tetimvula netikhukhula
2. Ngemoya uphephula kungcola
3. Ngekuwashela khona, emangcoliso njengemanabukeli
4. Tilwane letinatsa khona, tichamele, tikakele khona
5. Timphungane umatitfole emangcoliso tiwafake ekudleni, nasemantini.
6. Ngekubutsaniseka kwebantfu ndzawonye

TINTFO LETIDZINGWA KUMANGO

- sikolwa
- inkhulisa
- sibhedlela/ikliniki

KUHLELEMBISWA KWEMSEBENTI

3. Tindlela tekutfole tintfo letidzingwa ngulomsebenti
4. Kuncunywa kwesikhatsi semsebenti
5. Sikhatsi sekusebenta
6. Kwehlukaniselana umsebenti
 - kusita kutsi naloyo ati kutsi yena wentani
 - kusita kutsi umsebenti kubete lomako
 - kusita kutsi kube nemdlandla uma labanye basheshisa nalaba labanye batawubonela

- kusita kutsi kubete lobhaca emva kwalomunye
- kusita kutsi kwatiwe kwekutsi lencenye ifele kubani uma ingakentiwa

Sincumo seluswati lwekushaya labo labangafuni kubambisana nesive sonkhe

- lesincumo sentiwa sive nekomidi bese sikhulu nabandlancane bayasiphasisa ngekutsi sikhulu sisayinde
- kufanele kubekwe nesikhatsi sekuhlolwa kwemabhuku etimali kanye nekwetfulwa kwembiko
- linani lemiti
- badvweba timiso temaphayiphi, lithange etc
- kukhontisa kwemiti lengemakhulu lamabili timiso temaphayiphi, nelithange ke kona?

Kusebenta nekugcinwa kwemanti (operation and maintenance)

- o kujobelelwa kwemaphayiphi
 - (a) PVC pipe/liphayiphi leliyi plastiki
- o ungasebentisa lisokethe (socket)
 - hwaya emaphayiphi latawujotjelelwa
 - sebentisa i PVC solvent cement ugcobise emaphayiphi lajotjelelwako
 - yivale masinyane nawucedza kugcobisa lamaphayiphi
- o uma kute isokethe
 - lotsise lifutfumale gcobisa iglue sihloko seliphayiphi lelijutjiwe ufake liphayiphi lowulijubile.

(b) Liphayiphi lelimnyama laliplastiki

- ungasebentisa i straight coupling
- sebentisa insipho lugongolo, sunlight hhayi insipho leyimphuphu
- sebentisa i LUBRICANT/sigcobiso bese uyalifaka leliphayiphi

(c) Liphayiphi lensimbi

- o sebentisa inyonyane (union)

- o juba liphayiphi eceleni kwalapho lilimele khona, bese wenta emavenge venge bese uya treda (treads) (kwakha amadayisi)
- o Bese uyalijobelela ngenyonyane

PUMP ATTENDANT/WATER

Attendant (kudzingeke kutsi abhashiswe)

- o likinobho leliluhlata lekusebentisa iphampi
- o likinobho lelibovu lekumisa imphampi

Uma emanti bekangasebenti, nobe beku bhudluke liphayiphi lase liyapheshwa

- vala livaluvu (valve) lelimikisa emanti ethangeni, bese uvula livaluvu lekucitsa emanti/kuwalahla
- cindzetela likinobho leliluhlata bese ulindzela kutsi emanti ahlobe
- vala livaluvu lekulahla emanti uvule livaluva lelimikisa emanti ethangeni

Chlorine

- o Jik

Bumcoka bekugcina imisebenti yekuhloba nemanti lahlobile

- * Emanti ahlobile uma avikelekile
- * Ebaleni kuhlobile uma lite tibi nemakaka
- * Kudzingeka kube (1) nemanti lahlobile (2) nemthoyi (3) nemgodzi wetibi.

Uma ungakavikeleki kwenteka naku;

- * kungenteka uphatfwe tifo letingelapheki kalula
- * ulahlekelwa yincumbi yemali ulashwa esibhedlela
- * kungenteka kubete nemitsi yokukwelapha
- * Utfola kalula netifo letivikelekako
- * Kulesinye sikhatsi ube sewukhwelwa nanguletinye tetifo leti letichakelako

Tidzingo temthoyi

- * kugcina emakaka nalamanye emangcoliso lasifakela tifo
- * kuvikela kutsi timphungane tingatsatsi emangcoliso liwafake ekudleni
- * kuvikela nekutsi - lamangcoliso angayi emantini

Umgodzi wetibi

- * uma tibi tingakalahlwa kahle kungatalela tilokatane letinjenge timphungane netimbuzulwane, nemaphela nalokunye lokuyingoti
- * Emabhodlela, netikotela, netinsimbi letingasena msebenti tiningoti kubantfu kutsi bahlatjwe
- * Tibi tiyashiswa noma tigcitjwe

Umthoyi

- a. Tingoti temgodzi wemthoyi lovulekile nobe longakavalwa
 - o tinkhomo nebantfu kungagcumukela
 - o umgodzi ungagwala emanti
- b. Umthoyi ugcina liphayiphi lekuphefumula lelimnyama, ngoba lona liphefumulisa kahle umthoyi ngako umthoyi lonalo kawunuki kabi

Tolokatane letimcoka emphilweni yemuntfu

- a. Liphela/ligugu lemakhaya
 - lona liyatsandza kubingelela tivakashi
 - litsandza indzawo leshisako futsi lelinekudla
 - b. Imphungane
 - isidlakudla
 - inemona, idla ihlanta
 - itsandza intfo lebolako
 - emagciwane iwatfwala ngemtimba wayo nange sisu sayo
- * kwandza kwato
- italela ebulongweni/nemcuba nasetibini

TIFO

Umsheko lomkhulu (cholera)
Umsheko - Diarrhoea

- a. Hloba, sebentisa umthoyi
- b. Geza tandla nawubuya emthoyi
- c. Mbonya kudla
- d. Geza tifja emvakwekudla
- e. Hloba, sebentisa umgodzi wetibi
- f. Sibaya asibe bucalu nelikhaya

SIPHETFO

Lomhlangano sikolo wabayimphumelelo. Tifundvo taba lusito lolukhulu kubafundzi, tabavula emehlo ekucacululeni tinkinga tabo kulomsebenti wabo wemanti nemithoyi lababhekene nawo.

Sibulalela emabhodlela eNhlanganweni yeTemphilo neMhlaba (World Health Organization) ekusiteni ngetimali tekubamba lomhlangano sikolo.

Kubonga kwetfu sikundlulisela nakuBafundzisi (boTishela) laba timisela ngendlela lemangaliskao ekufundziseni kwabo, lokwenta kutsi wonkhe wonkhe lobekakhona kuletifundziso atfokote kube ingatsi lomhlangano-sikolo bewungachubeka ungapheli emva kwemalanga lasihlanu labe abekiwe.