Water and Sanitation

Towards a Healthy Family

WATER AND SANITATION: TOWARDS A HEALTHY FAMILY

ACKNOWLEDGEMENTS

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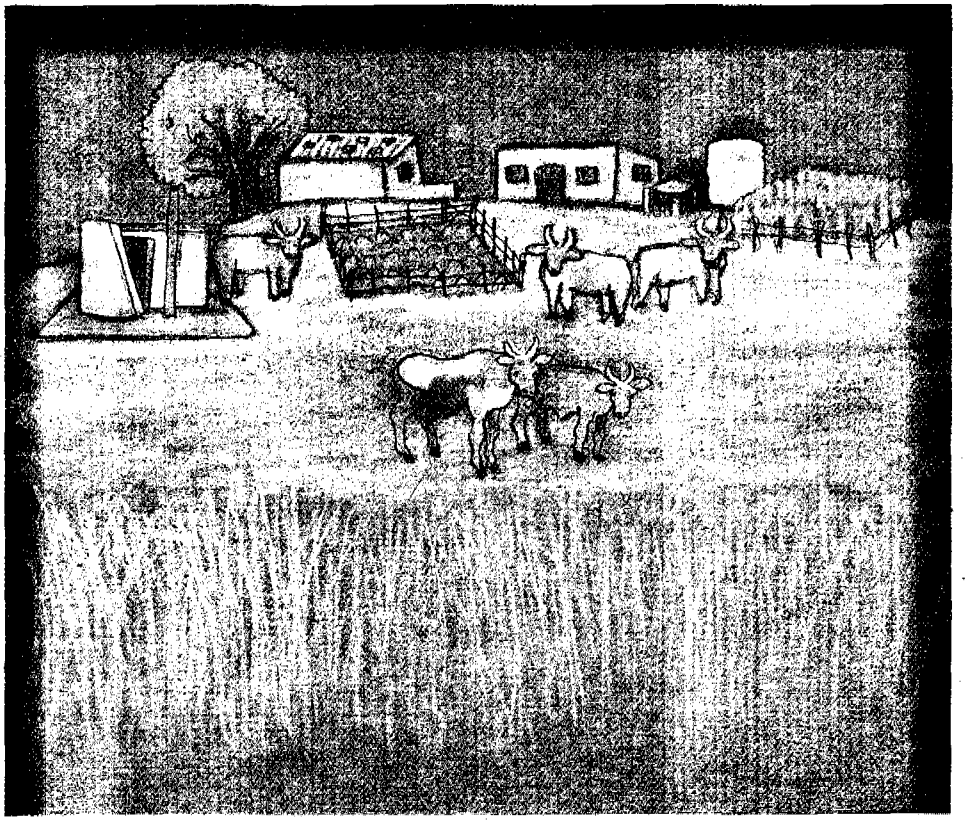
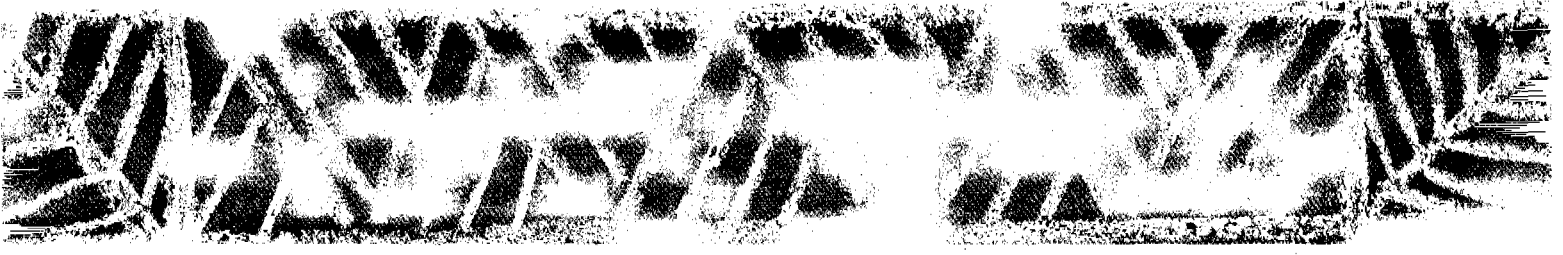
ISBN: 0-621-17502-1



CONTENTS



FOREWORD

The new Government of South Africa has accepted through its Reconstruction and Development Programme (RDP) that the provision of safe drinking water and proper sanitation facilities for all its people should be regarded as high priority. The RDP also regards accepted as its policy the Primary Health Care Approach. This approach is based on the prevention of ill health and the promotion of good health in the spirit of community participation and self-reliance.

The link between the provision of water and sanitation; and the potential positive impact thereof on the health status of the individual, families and communities through improved personal and environmental hygiene practices, have long been recognised by health professionals involved in primary health care in particular. It is for this reason that, through a joint effort of the Department of Water Affairs and Forestry and the Department of Health, this information guideline was compiled.

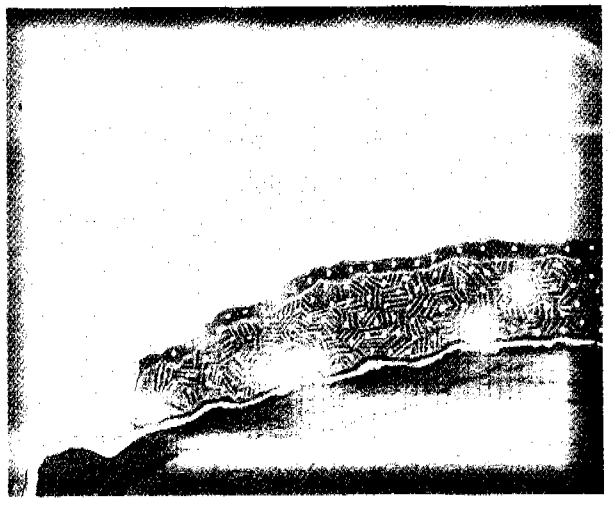
The main aim of the guideline is to provide people, especially families, who will benefit from water and sanitation projects of the RDP, with the information critical to ensure that their health status can be improved. Those who will for some time to come still depend on facilities and services related to drinking water and sanitation which are potentially unsafe and inadequate, will also benefit by this guideline. The guideline is therefore intended to be made available to families and communities through schools and clinics as well as other structures, especially in rural areas.

A twofold aim was strived at both in the formulation of the text and the design of the illustrations: accessibility to all people, and general acceptance of the publication. It is envisaged that the guideline will also be made available in some of the official African languages in the future.

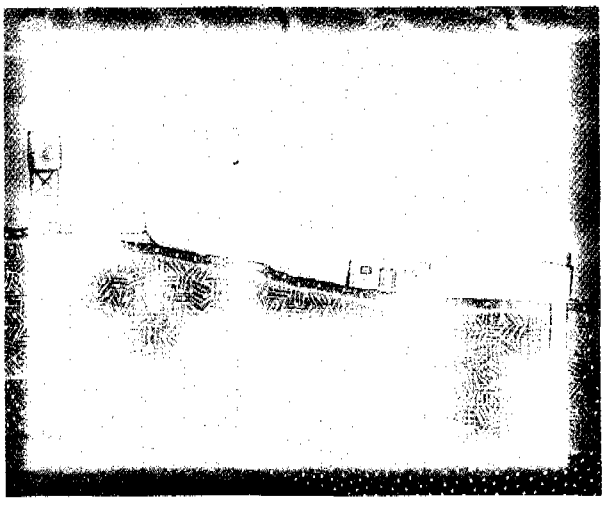
Your comment on this first edition will therefore be most welcome.

The relevant two Departments hope that the guideline will be utilised widely by those who are in need of the information, and that it will succeed in contributing to the overall goal of the RDP, namely to improve the quality of life of previously disadvantaged communities in South Africa.

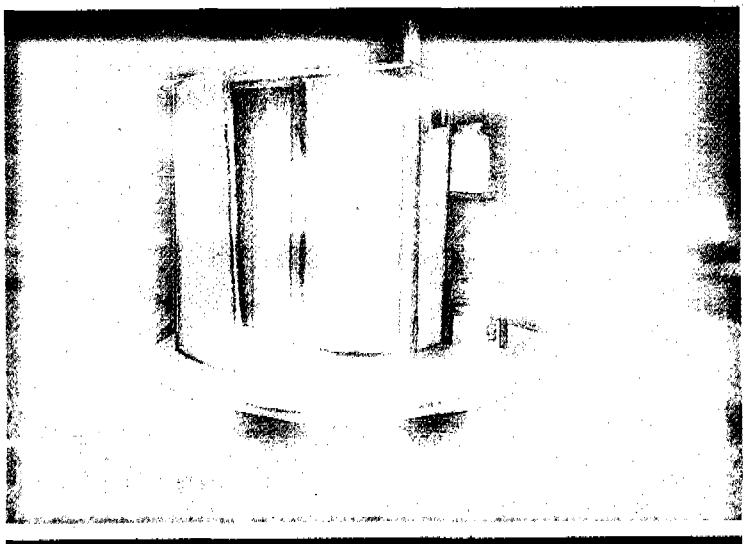
DEPARTMENT OF WATER AFFAIRS AND FORESTRY
DEPARTMENT OF HEALTH
OCTOBER 1996



Surface water

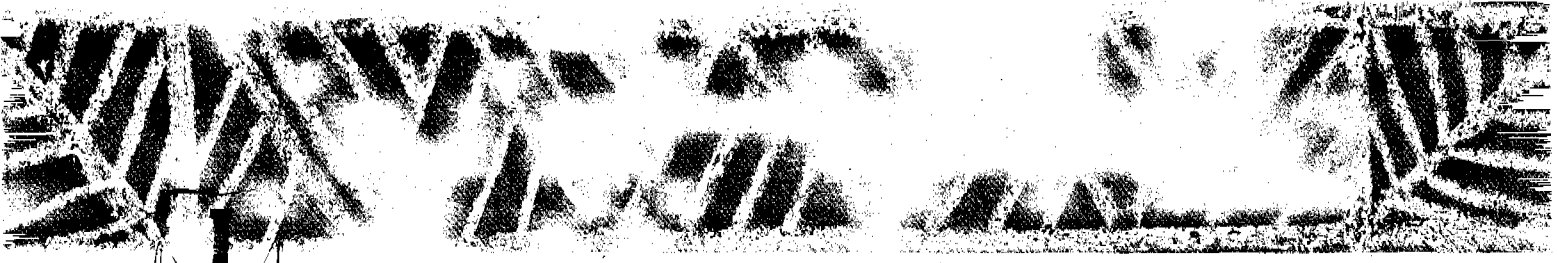


Groundwater



Sanitation - not only about toilets...

The healthy family



INTRODUCTION

TOWARDS A HEALTHY FAMILY is a guideline dedicated to all our people in rural communities to help them understand the link between water, sanitation and health.

It explains how to protect water resources, why sanitation practices are important and how communities can stay healthy.

Groundwater is the most common source of water - in many cases the only source - in rural communities. Therefore communities must learn to protect and care for these water supplies.

People in rural communities often get diseases because they don't have basic sanitation facilities. Often, too, they don't know how to protect their health.

This guideline supplies information about hygiene and how it can contribute to people's health. May it really help all towards becoming healthy communities!

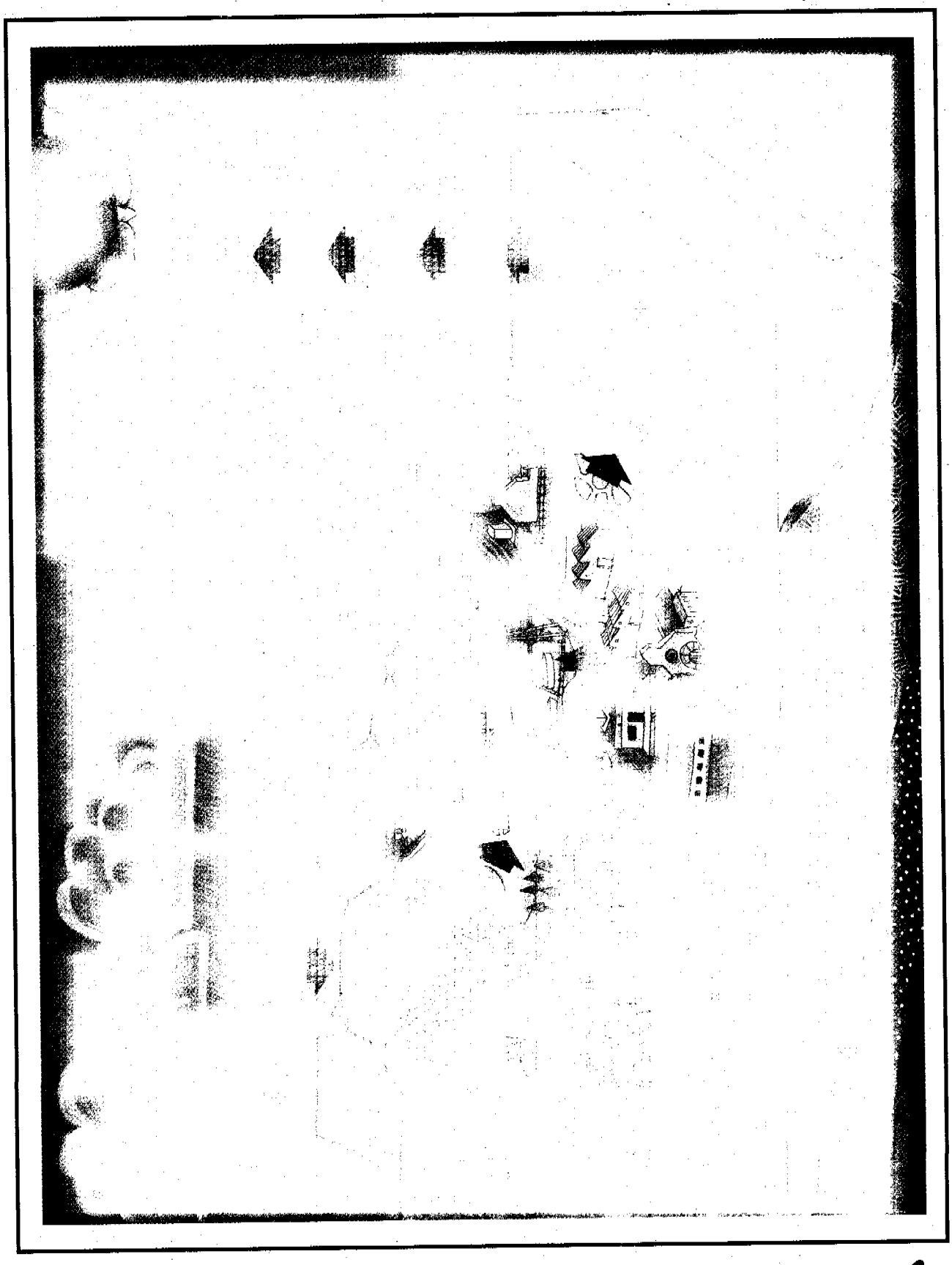
HEALTH IS HAPPINESS - HAPPINESS IS HEALTH

INFORMATION ABOUT THIS GUIDELINE

Information is given in this guideline on how to protect a community's water resources. It also explains the importance of the relationship between clean water, hygienic sanitation practices and health.

The main topics covered in the guideline are:

- **water**
- **sanitation**
- **health**



RAINFALL

South Africa is a dry country, with irregular rainfall. This country may have good rainfall during one year and little or no rainfall during another. That is why everybody - also our people living in rural communities - must protect our water resources. In this way we will have water during times of drought.

THE WATER CYCLE

Although it cannot always be seen, there is a constant flow of water in different forms from the land or sea into the air, and from the air onto the land or sea. This is called the **water cycle.** Water comes from the air onto the land or sea as rain, hail or snow. Then, again, water flows from the land or sea surface into the air in the form of vapour. When the sun shines, it withdraws water from all water surfaces (dams, lakes, the sea, rivers, pools, ponds), and even the soil, to become vapour (sometimes seen as mist), which rises with the air. (Hot air always moves upwards.) We then say the water has **evaporated**, and the process of water moving into the air is called **evaporation**.

If the water does not return to the earth (rain, snow, etc) the country becomes dry, and we say that there is a drought. During droughts our water resources are very limited. Therefore we, who live in a dry country, have to protect and save our scarce and valuable water resources.

WATER

The two major types of water sources are **surface water** and **groundwater.**

Surface water is the water on the surface of the land in rivers and dams, ponds, pools, springs and the sea.

Groundwater is water that is stored underneath the land surface.

What are the main uses for water in communities?

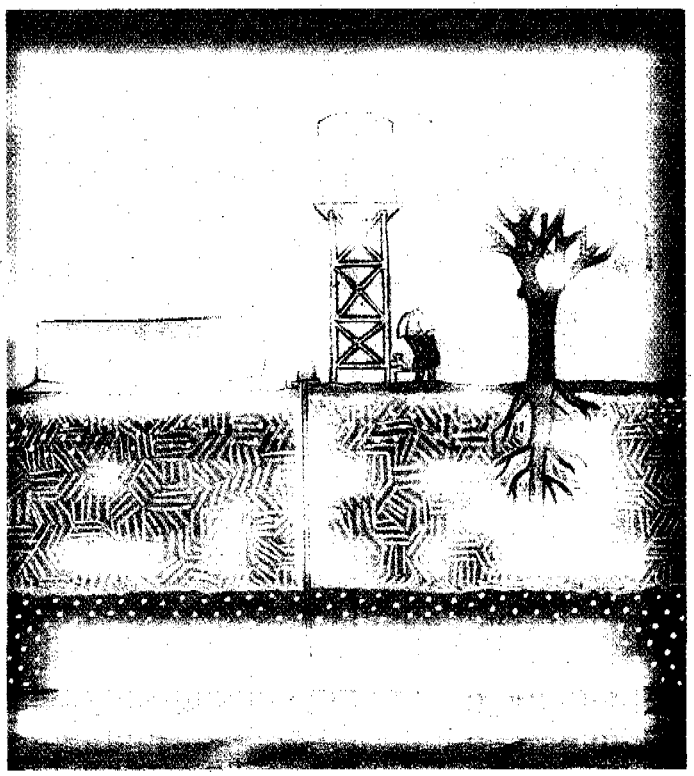
Water is used for:

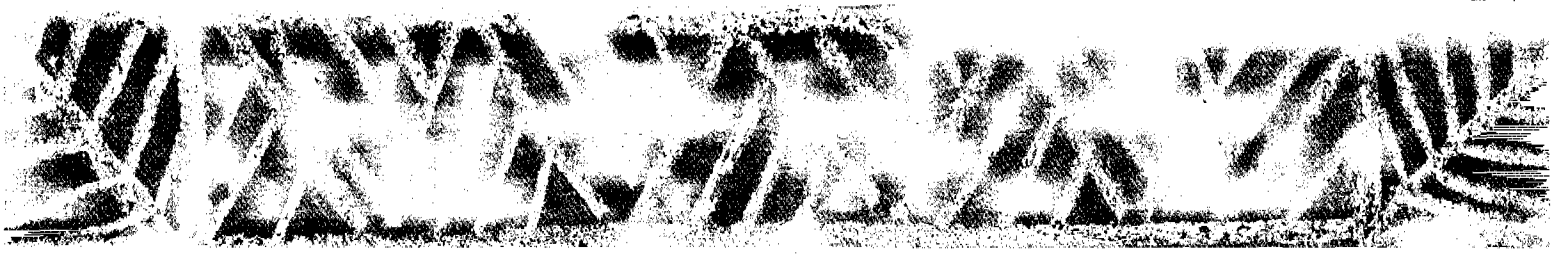
- drinking
- washing
- bathing
- cooking
- gardens
- recreation

GROUNDWATER

Groundwater is water found naturally within rocks and soils underneath the surface of the land.

Groundwater supplies are recharged by rain. This can be explained as follows: out of every 100 buckets of water falling onto the ground as rain, one bucket of water goes down





into the ground and fills up the groundwater. The rest runs off in rivers, or it is used by trees, plants, animals and human beings, or it is returned to the air through evaporation. If it does not rain, the groundwater supplies are not filled up.

GROUNDWATER LEVELS

The groundwater level is that point below the land surface where the groundwater is reached. Throw a stone into a borehole and you will hear when the stone hits the water - that point is the groundwater level.

The groundwater level changes throughout the year.

The change in groundwater levels is affected by:

- how much rain falls in the area
- how much water is pumped from the boreholes
- how much water is used by the trees and plants in the area
- how much water is stored in the rock and soil

During a good rainy season there is more water underground than during a dry season. The groundwater level then rises closer to the surface. During a poor rainy season less water flows into the ground. Then the level of the groundwater drops quickly. If too much water is pumped from a borehole, it dries up. Such a breakdown in water supply causes a major problem, as water is a daily necessity.

POLLUTION OF GROUNDWATER

Problems also arise when the groundwater becomes polluted. This happens when rainwater comes into contact with human or animal waste. If people drink the polluted water they can get very ill. Some people may even die. That is why it is very important to prevent pollution of water.

BOREHOLES

Boreholes are drilled into the ground by drilling machines to find groundwater. Pumps are then installed to bring the water to the surface, where people, animals and crops can use it. Boreholes cannot be drilled anywhere; only where there is enough groundwater and qualified people can help locate the spots.

How much water can a borehole provide? It depends on the following:

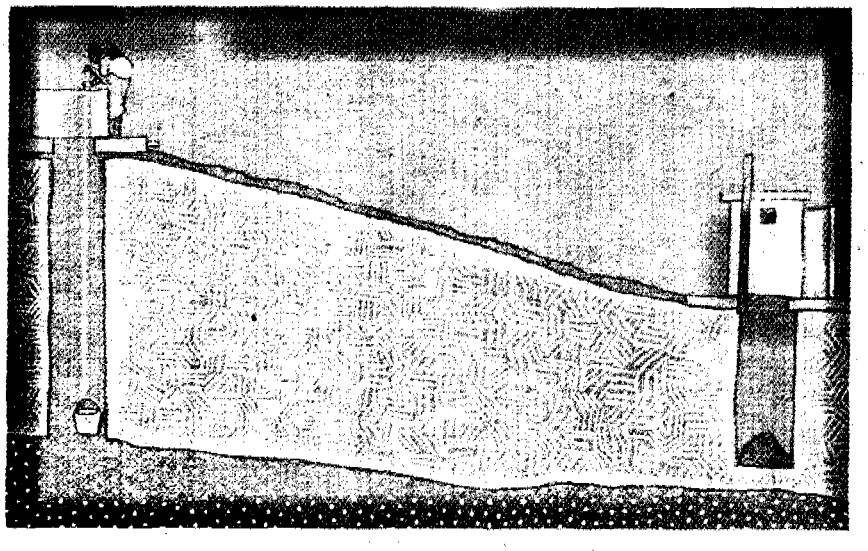
- how much groundwater is stored underground and how long it takes to fill up the groundwater level
- the type of the pump; a hand pump (requires physical human energy) or an engine-driven pump, driven automatically by an engine
- the size of the engine, in the case of an engine-driven pump
- the borehole's yield, as a low yield of water in the ground will not allow a big engine to pump out a large amount of water
- too much pumping at any borehole will cause the borehole to dry up sooner
- groundwater stores consisting of coarse sands can hold more water than fine sands
- the depth of the groundwater affects the yield. Water found deep underground needs more pumping power to bring it to the surface. Also, deep water supplies are less likely to be filled up again. Too much pumping at any borehole will cause the borehole to dry up soon. This would also happen if the water is pumped out too soon, much more than its recovery rate.

KEEP WATER CLEAN!

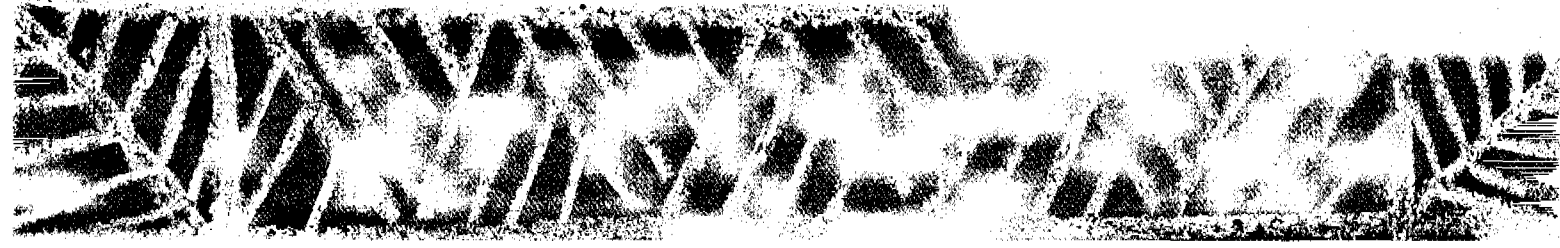
Most of the rural communities rely on natural water supplies like rivers, streams and springs. These are open to all kinds of pollution and are then a threat to the health of the communities using the water. Water should be protected, as people and livestock need clean water. If the water is polluted it can carry living organisms that cause diseases. It can also have a bad taste.

Pumps bring water to the surface for human use

Boreholes should be protected with a fence to keep out animals



Pit latrine built on a slope at least 20 m below *the borehole*



Water is essential for our lives. Name a few things for which water should be available:

- personal hygiene
- drinking, cooking
- household use
- recreation

You can help to protect your community's water resources in the following ways:

1 **Don't build pit latrines next to boreholes.**
This will help to prevent waste from moving from the pit to the borehole. It will also prevent the spreading of diseases.

2 **Build the pit latrine on a slope at least 20 m below the borehole.**
This will prevent the movement of people's waste into the groundwater of the borehole.

3 **Protect the borehole with a fence.**
It will stop cattle or children from damaging the borehole. It will also prevent them from leaving their waste where it can get into the groundwater and spread diseases.

4 **Drain pools of water near the borehole or trough regularly.**
Such pools can cause problems by providing a home for germs to breed. They can attract mosquitoes and so increase the risk of malaria. The water can also flow into the borehole and pollute the groundwater with pollutants such as chemicals used during washing. This will also cause diseases.

5 **Cover tanks holding water.**
This will prevent the falling of dust, birds, birds' droppings and other dirt into the water tank. The cover also prevents children from throwing tins and stones into the water in the tank, or even falling into it.

6 **Check the water tank regularly** to see if it is clean. If it is not, clean it.

7 **Recreation:**
- Do not swim at the same place where drinking water is collected.
- Be careful of bilharzia risks if you want to swim in surface water.

HOW TO KEEP THE COMMUNITY'S WELL WATER SUPPLY CLEAN

1. Dig wells at least 20 m away from toilets.
2. Build a wall around the well.
3. Put a cover on the well to protect it from pollution or children falling in.
4. Use only one bucket to draw water and keep it clean. For example, do not let it touch the ground around the well.
5. When drawing water from the well, touch only the handle and the outside of the bucket.
6. Clean the well during dry seasons.
7. Repair the wall around the well when it gets broken.
8. Add chlorine to the water in the well if tests show that it is necessary. If it is not possible, you can clean the water yourself by boiling it before drinking or using it for cooking.
9. Make sure that all water spilt around the well drains away quickly.
10. Taps should always be repaired, whenever they are broken.
11. Keep the area around the standpipe clean and drain spilt water away from the standpipe.

Appoint one person from the community to look after the well and standpipe and to see that they are regularly maintained. Let the community jointly provide a small wage for this work.

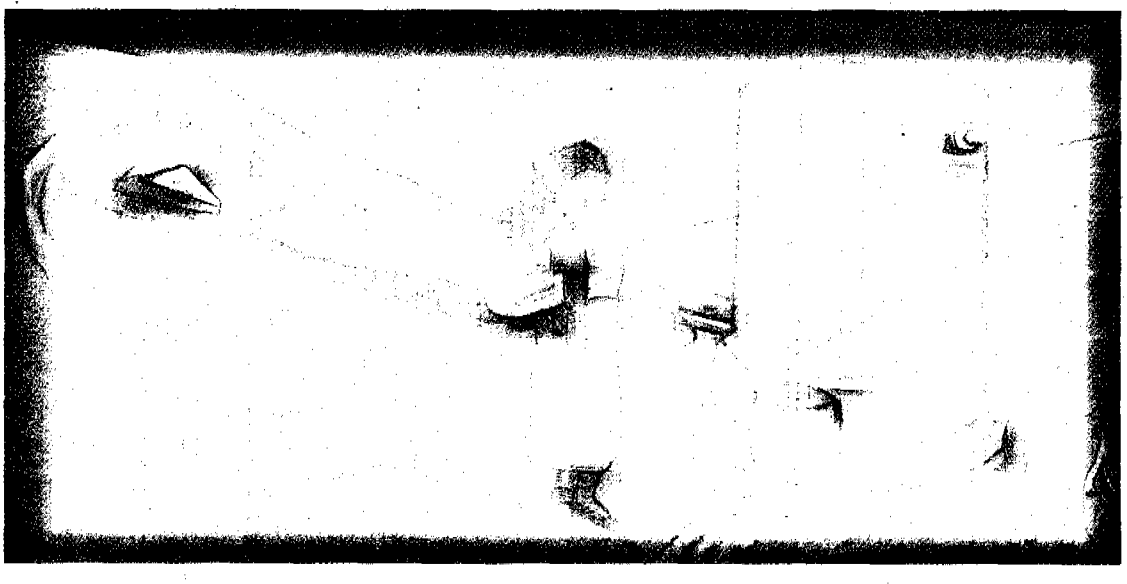
WHAT IS A SPRING?

A spring is surface water which comes from below the land surface. A spring often rises on the side of a hill. When it rains, the rainwater drain into the ground, and is stopped by a layer of rock or clay. The water flows along the layer and rises to the surface of the land at the source of the spring.

An unprotected spring is unsafe and unhealthy. Polluted water can carry diseases to people and animals. A spring that is properly protected, has cleaner, safer and healthier water.

The protection of a spring or other water source can be a good project for your community. This should not be expensive, if compared to other kinds of water supply such as boreholes. You do not need special equipment or skills. Everyone can take part in the work.

HOW CAN YOU PROTECT A SPRING?

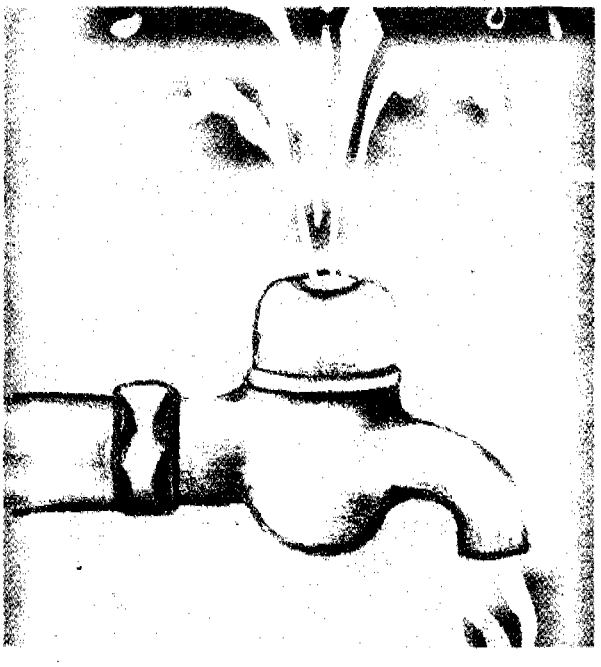


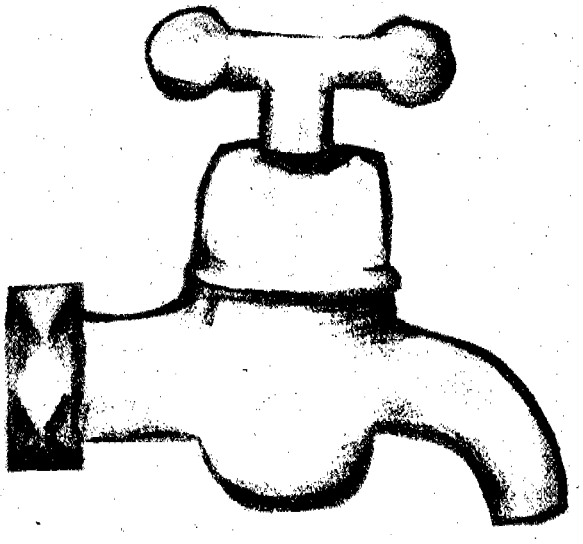
- You protect a spring by casting a concrete "v"-shaped wall around the water source (spring).

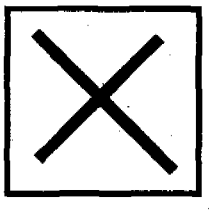
- Cover the spring.
- A pipe leads water from the spring to a tank which fills up with water during the night.
- During the day people can fetch water from the tank.
- Springs occur in rocky hillsides, river banks and marshes.
- The method given here can be changed to suit each spring.

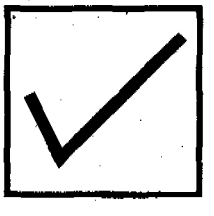
How to save water

1 Never leave taps running.









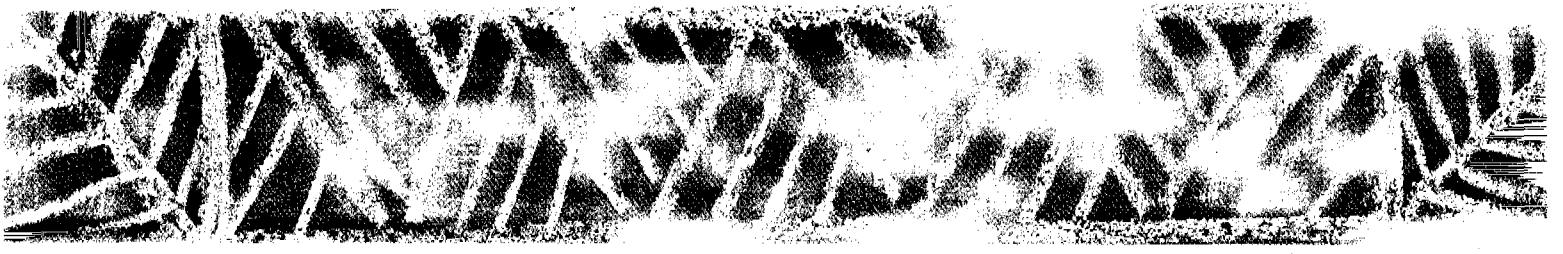
2 Repair leaks.

3 Place a cover over your water tanks and containers to reduce the loss of water into the air.

4 Do not pump more water than you need.

5 Use waste water from your house to water crops, plants and trees.

6 Water crops, plants and trees in the evening to reduce water loss during the hot and dry days.



NEW WORDS!	
CHEMICAL(S)	The materials that are used in soap and which help keep our washing clean, are chemicals. Such materials can also be found in engine oil used for cars. If they come into contact with water, they change it from good to bad quality.
EVAPORATION	This is the loss of water from all open water surfaces such as dams, streams and rivers, due to the heating effect of the sun.
GROUNDWATER	This is water that occurs in the spaces and cracks of rocks and soils such as sand, gravel, clay and silt, below the surface of the land.
HYGIENE	principles helping you to maintain your health
INFILTRATION	rainwater draining into the ground
ORGANISM	a small organised body with connected parts sharing common life
POLLUTANTS	organisms or chemicals found in water, that would not naturally be there.
POLLUTION	This is the changing from good to bad, of our water supplies. This change can be due to leaks from our pit latrines, leaks from kraals nearby, from burial sites, and from waste disposal sites.
RECHARGE	supplementing of rain-water in the ground
RECREATION	pleasurable exercise: sport, biking, etc
RUNOFF	rain-water running over the soil
SURFACE	the upper edge of soil
WATER TABLE	the level of water in the ground

SANITATION

In this chapter you will learn more about sanitation. Bad sanitation practices are costly and may cause the death of people. When you have worked through this chapter, and through this guideline, you should be able to practise the things that you have learned - and you should teach your children to do so, too.

The unhygienic disposal of human excreta (faeces) is one of the main causes of human suffering and death in South Africa.

Diseases such as bilharzia, typhoid, cholera, viral hepatitis, diarrhoea, dysentery and food-poisoning are water- and food-borne. This means that, in the end, they are caused by the lack of adequate toilet facilities and of safe drinking water. They can also be caused by the improper use of, or not using, the facilities that are available.

Insufficient personal hygiene can also cause diseases or even death.

Sanitation is not only the building and using of toilets, as many people may think.

WHAT IS SANITATION?

Sanitation is the maintenance of sanitary conditions. Basic sanitation therefore means the provision of sufficient hygienic, hazard-free toilets, the effective removal and disposal of household waste, and effective effluent (waste) disposal.

Sanitation is also about

- the safe disposal of human excreta, particularly the faeces of young children, babies and people with diarrhoea
- hand washing after defecation, after handling babies' dirty nappies, before feeding and eating and before preparing food
- keeping drinking water free from faecal contamination in the home and at the source

The purpose of good sanitation is to ensure good health. Families must try to prevent the pollution of food supplies, water sources and the environment. Toilet facilities must be adequate at home, at schools, at the work place and at public places. Where you have adequate toilet

facilities, you must understand why it is important to use the toilets and how to use the toilets. Adopt the habit of using toilets in a hygienic way. You are responsible for your own health. Also teach the children these rules.

WHY IS SANITATION NECESSARY?

Everybody needs to obey the call of nature every day. By obeying those needs you have a duty to yourself and to others not to continuously pollute the environment by indiscreet urination and defecation, that is, doing so just anywhere.

By polluting the environment in such a way people spread germs and cause diseases. Diseases caused by helminths, bacteria, protozoa and viral infections spread through the water you drink and with which you wash yourself. As safeguards towards a peaceful future and towards a strong community in mind and number, you have a special duty. You, as a parent, health authority or teacher, must guide the younger children towards adopting good personal and community hygiene habits. Only then can disease and poverty be prevented.

Sanitation has the following effects on our lives:

1 HEALTH IMPACT

The impact of bad sanitary conditions and practices on the health of people living in rural areas is significant in terms of the quality of life and the education and development opportunities of the communities.

2 ECONOMIC IMPACT

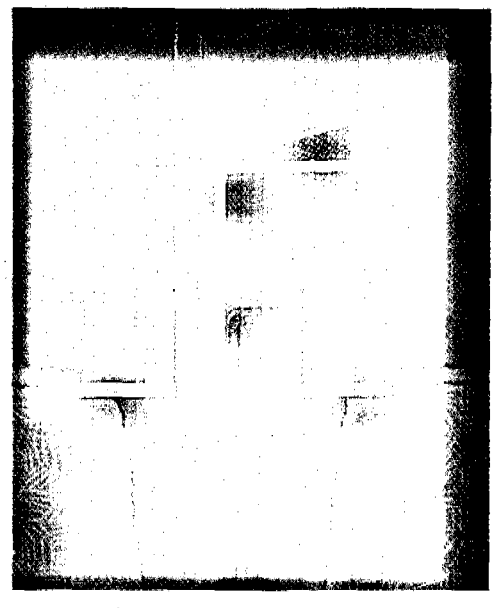
The effect on household economies is serious, keeping the families in a cycle of poverty, lack of proper knowledge and lost income due to illness.

The national cost of lost productivity, reduced educational potential and curative health costs is a major drain on the local and national economies.

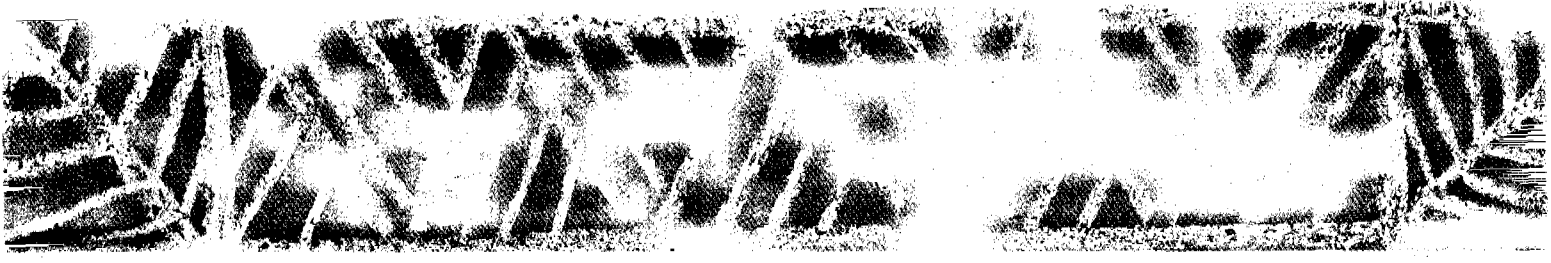
HOW DO WE KEEP THE TOILET CLEAN AND IN GOOD CONDITION?

- Clean the walls, floor and door of the toilet regularly. Every member of the family can help with the cleaning.
- Clean and wash the seat with soap and water.
- Fill any cracks in the walls, floor, door and roof and keep them in good repair, to prevent insects from coming inside and breed there.
- Make sure the toilet is properly ventilated, i e lets fresh air through freely.

A happy, healthy family cleaning the toilet regularly



A toilet built with proper ventilation



A toilet is not a rubbish bin!

- Cover the top of the vent pipe with a fly screen to prevent flies from breeding there and carrying diseases.
- Put lime down the toilet regularly to kill mosquitoes.
- Do not put rubbish on the floor.
- Do not eat in the toilet.
- Wash your hands with soap and water after using the toilet.
- If there is no standpipe, keep a container with water (and soap, if possible) near the toilet to wash your hands.
- Do not dump rubbish down the toilet. In so doing you will shorten the lifespan of the toilet.
- Keep the toilet seat closed when it is not in use, to prevent children from falling down the toilet and from insects entering it.
- Teach the children how to use the toilet properly.

Where there are many toilet units at schools, they can be cleaned by individual school classes.

NEW WORDS!	
BACTERIA	very small living organisms that cause diseases
CONTAMINATION	the changing of the quality of water from good to bad
CURATIVE	able to cure (medicines)
DISPOSAL	getting rid of something
EFFLUENT	sewage or waste that has to be disposed of
GERMS	small organisms causing diseases
HAZARD	danger or risk
HELMINTH	a disease characterized by the presence of worms in the body
INDISCREET	making no distinction
PROTOZOA	tiny organisms (can cause diseases)
SANITATION	maintaining or improving sanitary conditions
VENTILATE	letting fresh air into a room
VIRAL INFECTION	diseases caused by **viruses** (small organisms)

HEALTH

In this chapter you will learn important facts about health. The relationship between water, sanitation and health will become clear. This will help you to build a strong and healthy community.

There are many people living in rural communities countrywide. The number of people is growing fast because of the number of babies who are born every year. It also grows because people move into the communities from elsewhere.

More than half of all diseases and deaths among young children and adults are caused by germs that get into their mouths.

How do the germs enter their mouths? They get there because the people:

- drink dirty water
- eat food covered with all sorts of insects
- do not keep themselves clean
- do not use a toilet or do not keep it clean

You must try to do everything in a clean way. Then fewer people will get ill and you can live longer because you are healthy.

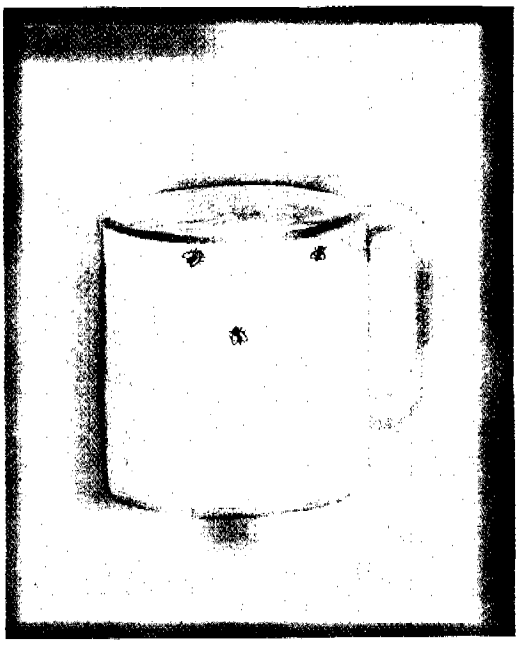
It is important that **everyone** in the community knows about the relationship between water, sanitation and health. They must also work together to practise hygiene. In this way the community will be a healthy one.

TYPES OF HYGIENE

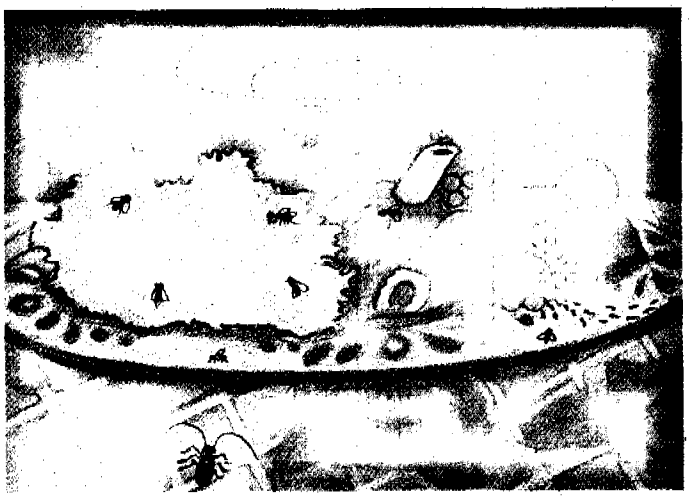
1 Personal hygiene
2 Household hygiene
3 Community hygiene
4 Environmental hygiene

Hygiene is a set of principles helping you to maintain your health. Teaching people about hygiene means teaching and encouraging them to adopt clean practices to prevent disease.

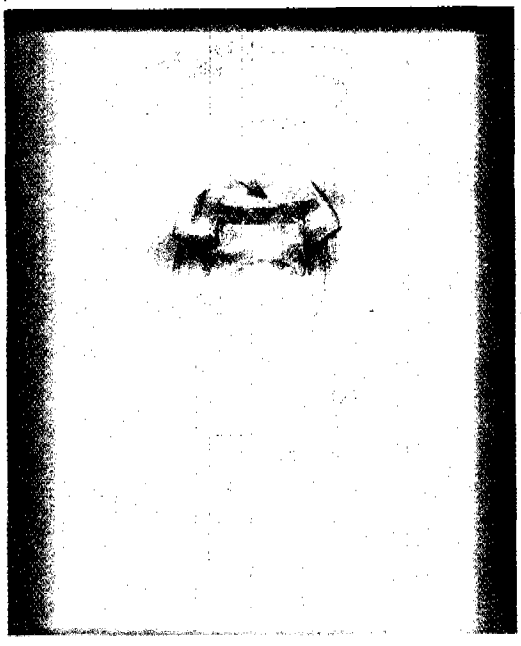
THE DANGER OF GERMS



Germs enter the body through drinking water from dirty cups

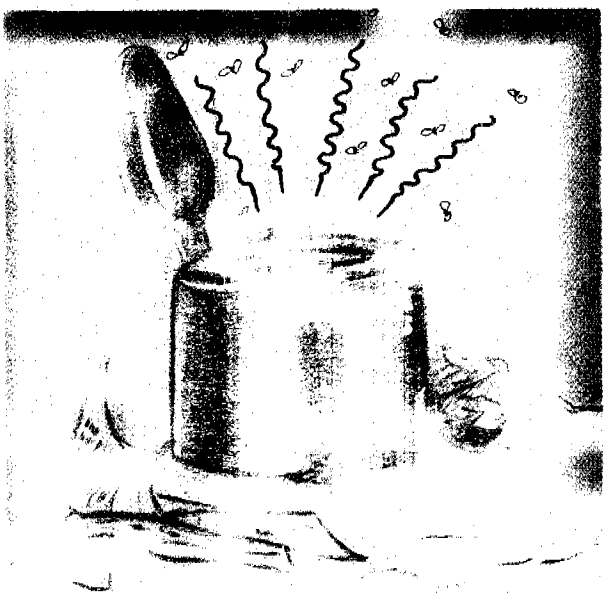


Flies on food can cause diseases



A dirty body is a breeding place for germs

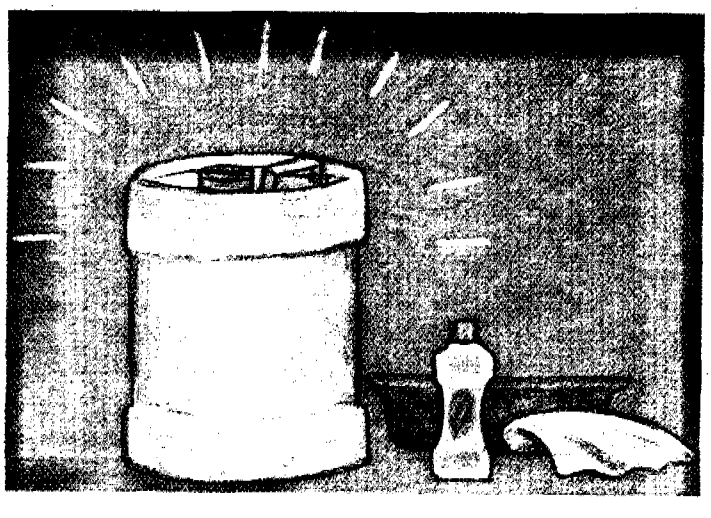
Germs multiply in a dirty toilet

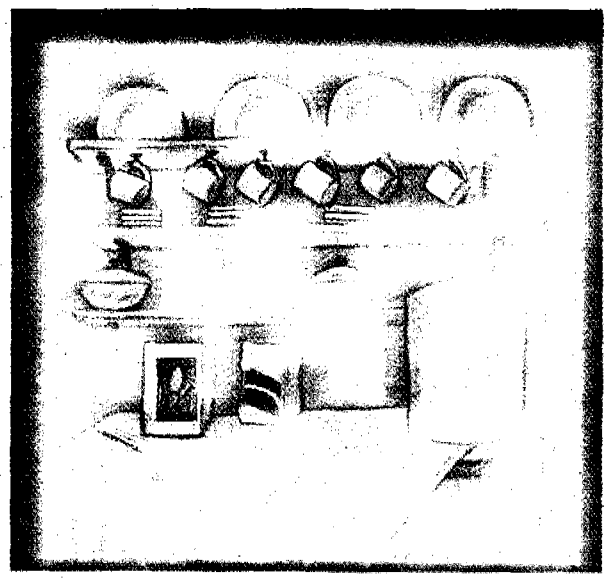


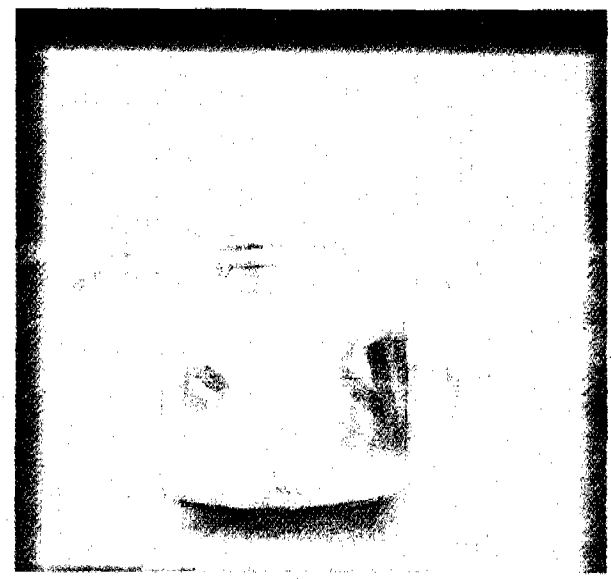
1 PERSONAL HYGIENE

What must you always do?

- Wash your hands regularly with soap or ash. Always wash your hands after using a toilet and before preparing or eating food.
- Bath or wash your body regularly.
- Use a toilet. If a toilet is not available, cover the faeces with ground so that children or animals cannot get near it.
- Bath children regularly.
- Wash clothes and bedding regularly and let them dry in the sun.
- Use a clean container for household water.







2 HOUSEHOLD HYGIENE

What happens if your body is clean but your house is dirty? Or if you let all kinds of animals into your house? You can still be a victim of disease.

Here are some tips on how to keep your house clean:

- Keep animals out of living areas.
- Use a safe method of faeces disposal.
- Keep a special area for the disposal of waste water and rubbish, or water the crops, plants or trees with the waste water.

- Throw away waste by burning or burying it in an area far away from the house, the borehole, the water tank or the spring.
- Clean household utensils regularly.
- Make sure that the food, water and cooking equipment are stored in a safe, clean place.
- Clean the house regularly.
- Keep food and water free from flies and insects.
- Keep water storage pots covered and do not allow children to play with the water in the pots. Do not let animals drink water from household water containers.

3 COMMUNITY HYGIENE

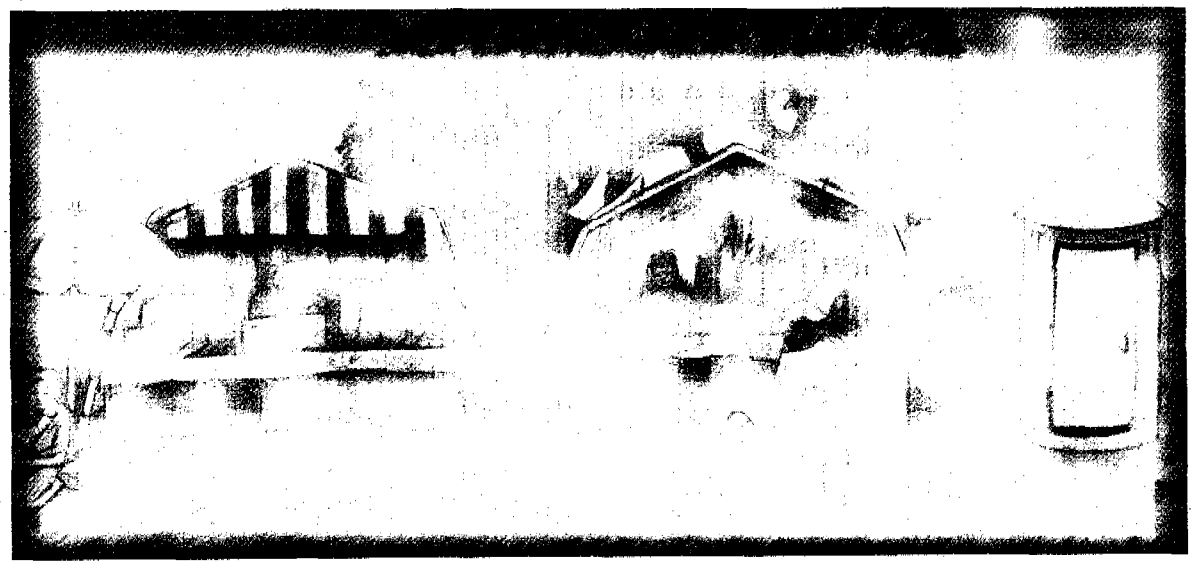
Everyone living in your community wants to feel very proud of it. You can only feel proud if you stick to hygienic practices. Then visitors will go back to their communities and tell them how beautiful and clean everything and everybody look at your place.

Some of the following guidelines can help to set an example to other communities:

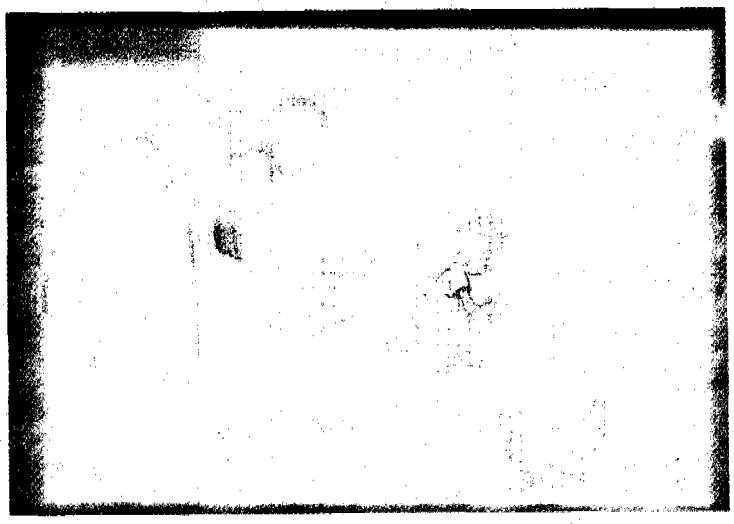
- Keep the areas around water sources dry or well drained and clean.
- Provide clean toilets for the people in the community to use.
- Keep cattle, pets and children away from water points and toilets.
- Keep footpaths and roads free from rubbish and human waste.
- Provide a safe way of throwing away waste water and rubbish from public places such as markets or communal washing facilities.

4 ENVIRONMENTAL HYGIENE

A neat and tidy environment is the people's friend and the germs' most feared enemy. Germs cannot live in a clean environment. Germs like dirty, smelly and humid environments. They multiply by the thousands in such circumstances and spread diseases amongst the people.



A clean environment: pride of the community



Keep the environment safe and clean

It is very important that everybody in the community gets involved and helps to keep the environment clean. They must be aware of the danger of pollution and its damaging effect on their health.

To help keep your environment clean and tidy, you can get involved in some of the following projects:

- Throw rubbish such as empty tins in the dustbins or burn it in a safe area far from the house, the borehole, the water tank and the toilet.

- Do not pollute the stream, river or spring by throwing your waste in it. Do not use it as a toilet.
- Make kraals and water troughs for the cattle and/or livestock.
- Arrange a tidying-up day in your school or in the community.
- Find out who are the people who do not care for the environment and teach them how to care.

- Washing clothes and blankets in the water source can cause pollution of the water source. Make the women and the children in the community aware of this.
- Make provision for washing facilities away from the water source.

HOW CAN YOU PREVENT DISEASES IN THE COMMUNITY?

Diseases can be prevented by...

1 **... washing hands with soap and water after going to the toilet, and before handling food.**

2 **... using toilets.**

3 **... using clean water.**

4 **... boiling or disinfecting drinking water** if it does not come from a safe water supply, for example a river or pond.

5 **... keeping food clean.**

6 **... burning or burying household waste.**

You have now learnt about the ways in which diseases can be prevented. Some more information is necessary to help you and your community to understand the reasons for doing everything in a clean and hygienic way. First answer the following question:

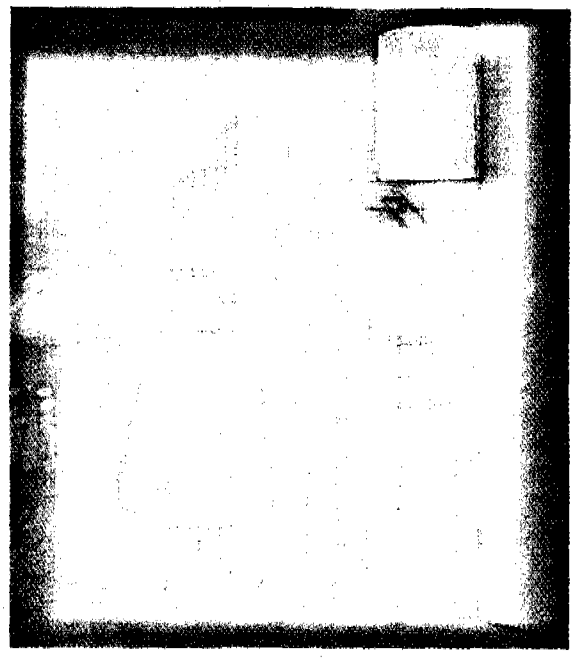
WHY DO PEOPLE IN HOSPITAL RECOVER FROM DISEASES?

The reason is that hospitals have to be in a very good, clean and hygienic condition before they can allow people to go there. If hospitals were not clean, people would not recover from diseases.

Let us now look more closely at each of the ways in which you can prevent diseases:

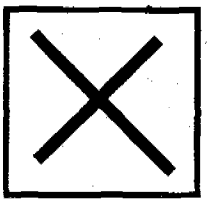
1 **Diseases can be prevented by washing hands with soap and water after going to the toilet, and before handling food**

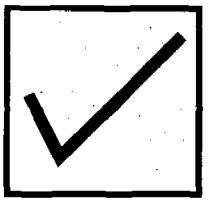
- Washing hands with soap and water removes germs from the hands. This helps to stop germs from getting onto food or into the mouth.
- It is especially important to wash hands after defecating and before handling food. Also after cleaning the buttocks of a baby or child who has just defecated.



Washing hands after using the toilet

- Children often put their hands into their mouths. It is therefore important to wash a child's hands regularly, and especially before giving food.
- A child's face should be washed often during the day. This helps to keep flies and insects away from the face. It also prevents eye infections.





2 Diseases can be prevented by using toilets

The most important action which families can take to prevent the spread of germs is to dispose of faeces safely. Many diseases, but especially diarrhoea, come from the germs found in human faeces. People can swallow these germs if the germs get into the water, onto food, onto hands or onto utensils and surfaces used for preparing food.

How can you prevent this from happening to your family?

- Use a toilet.
- If a toilet is not available, adults and children should defecate at a safe distance from houses, paths, water supplies and places where children play. After defecating, cover the faeces to prevent someone else from coming into contact with it. The faeces of babies and young children are even more dangerous than those of adults. Even small children should be taught to use the toilet. If children defecate without using a toilet, their faeces

should be cleared up immediately and either put down the toilet or be safely buried.

- Toilets should be cleaned regularly and the seats should be kept covered.
- Keep the faeces of cattle and pets away from homes and water sources.

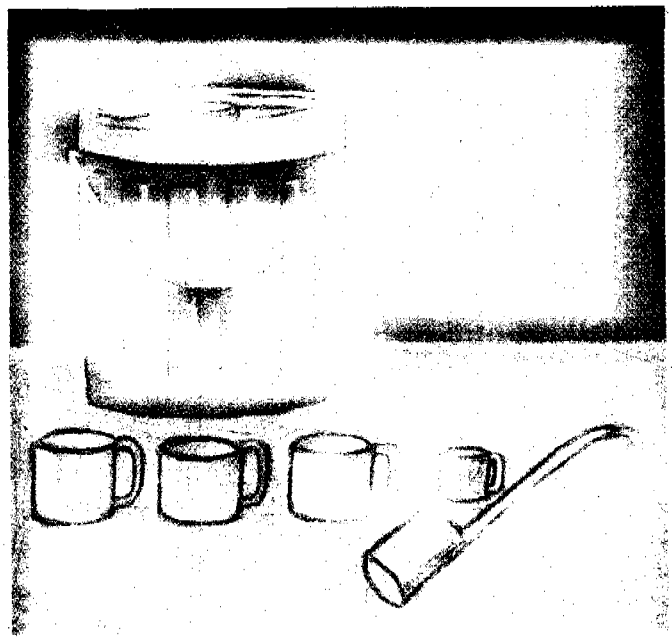
3 Diseases can be prevented by using clean water

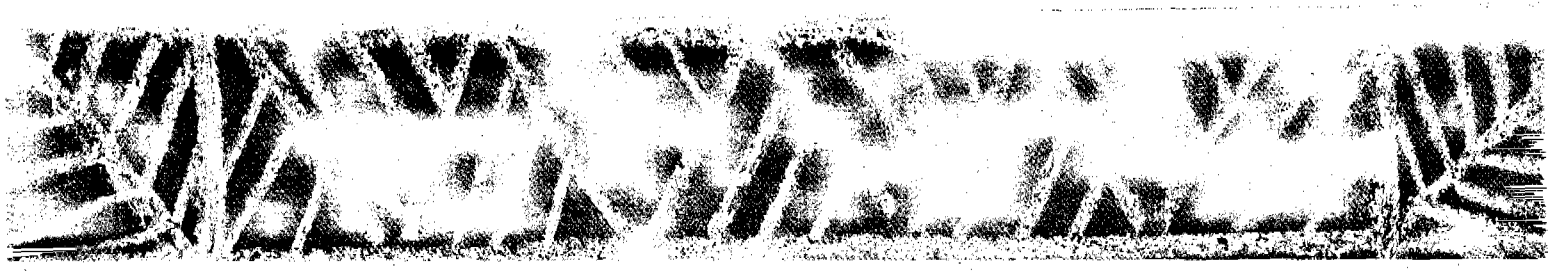
Families who have safe, clean water, and know how to use and protect it, have fewer diseases. Families without safe and clean water can reduce the occurrence of diseases if they protect their water supplies from germs. **They must:**

- keep the water wells covered
- keep the faeces and waste water (especially from toilets) away from any water used for cooking, drinking, bathing or washing
- keep the buckets, ropes and containers used to collect and store water as clean as possible. For example: hang up the buckets rather than put them on the ground
- keep the cattle, pets and livestock away from the household drinking water.

How can families keep water clean in the house? They must:

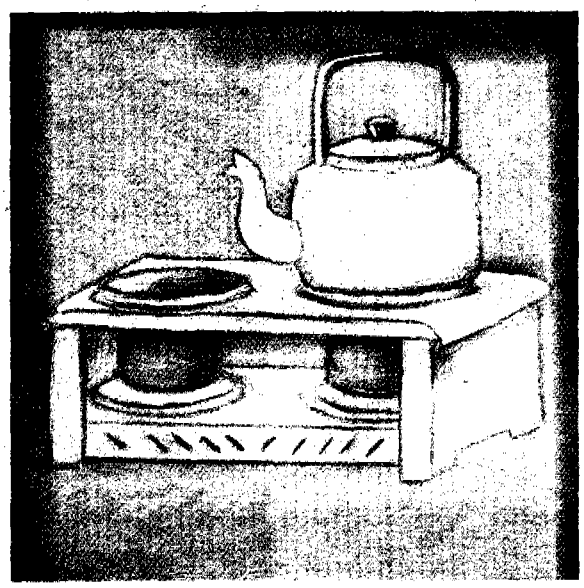
- store the drinking water in a clean, covered container
- scoop the water out of the container with a clean ladle or cup
- forbid everybody to put their hands into the container or to drink directly from it
- keep the animals out of the house.





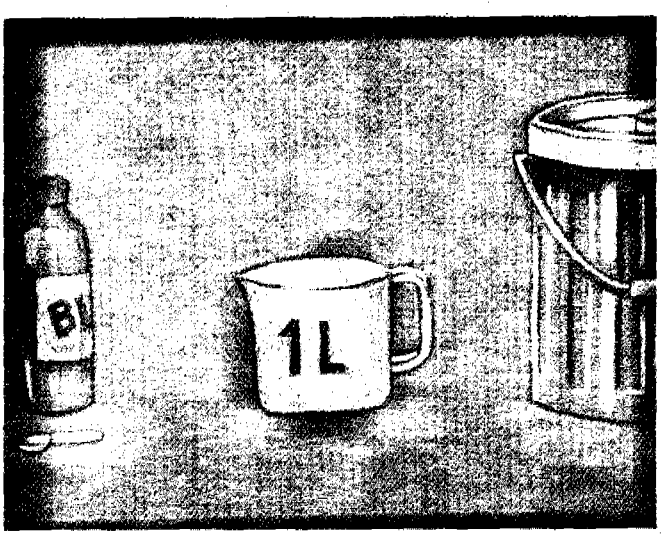
4 Diseases can be prevented by boiling or disinfecting drinking water if it does not come from a safe water supply

- Even if water is clear, it may not be free from germs.
- If you boil the water the germs will be killed. Water drawn from sources such as ponds, streams, springs, wells, tanks or public standpipes must be boiled and cooled before drinking. It is especially important to boil and cool the water that is given to babies and young children, because they have less resistance to germs than adults.



Boil water before drinking

- If boiling is not possible, store drinking water in a closed or covered container of clear plastic or glass. Leave it standing in sunlight for two days before using it.
- Disinfecting the water with household bleach is also a very effective method of cleaning the water. Water is disinfected by using available, safe chemicals to kill the germs in the water.



This is how to disinfect the water

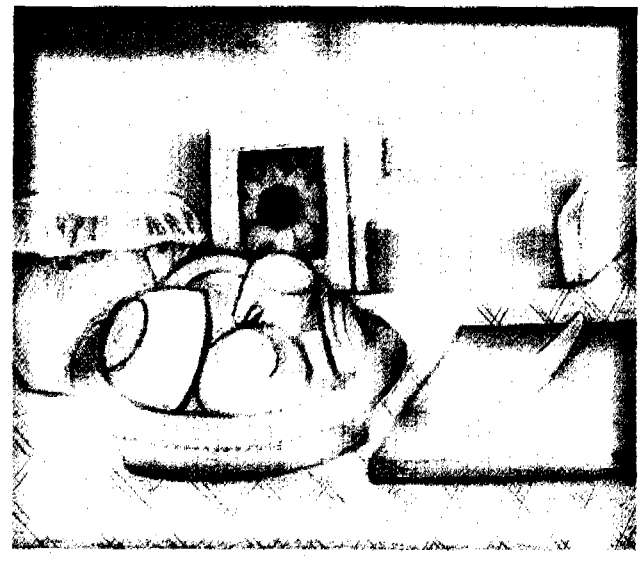
The following method is effective in disinfecting the water:

1. Use household bleach.
2. Add one teaspoon of household bleach to ~~ten~~ 25 litres of water.
3. The dosage for every disinfection is the same.

Always be careful when using household bleach, not to spill it or use too much.

5 Diseases can be prevented by keeping food clean

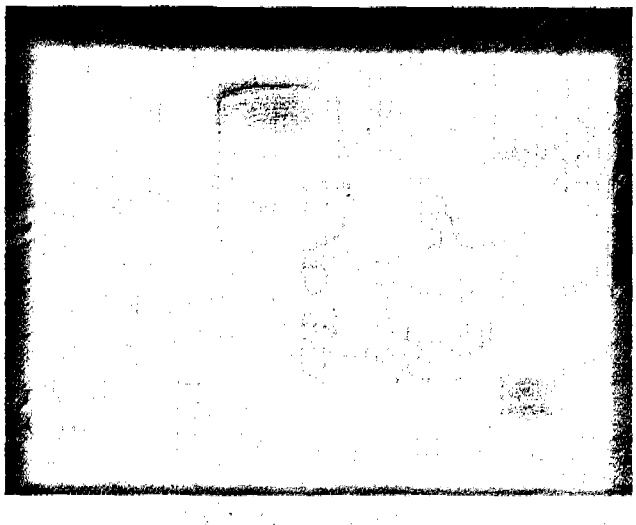
Germs on food can enter the body and cause diseases.
How can food be kept safe? Food can be kept safe if you:



A neat, clean table is necessary to keep healthy

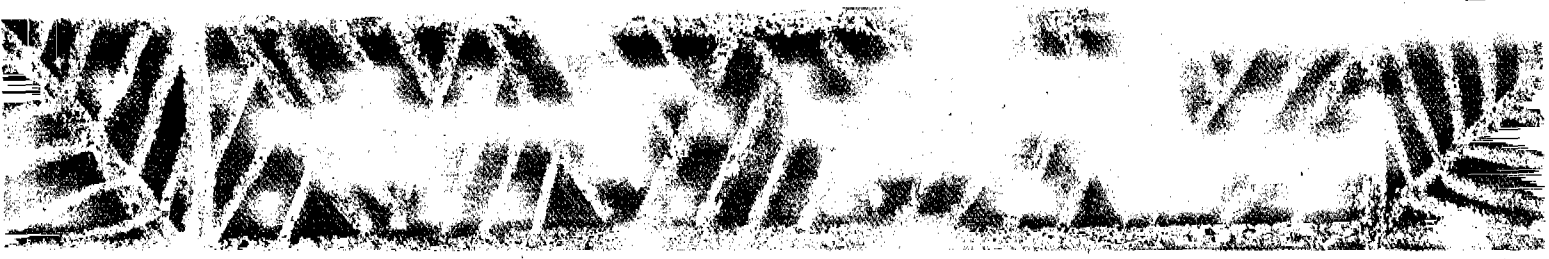
- cook it thoroughly, especially meat and poultry
- eat the food soon after it has been cooked, so that it does not have time to go bad
- keep it heated or cooled if the food has to be kept for more than five hours
- reheat left-overs before eating
- Raw meat usually contains germs. Do not let it come into contact with cooked meat. Also: clean the utensils and the table after working with raw meats
- keep the table where food is prepared clean
- keep food clean and covered and away from flies, rats, mice and other animals
- always use clean, safe water while preparing food.

6 Diseases can be prevented by burning or burying household waste



Germs can be spread by insects such as flies, which like to breed in waste such as food scraps and fruit and vegetable peelings. It is very important that every family has a special pit where household waste or refuse is buried or burned every day.

Germs spread from household waste that is not burned or buried

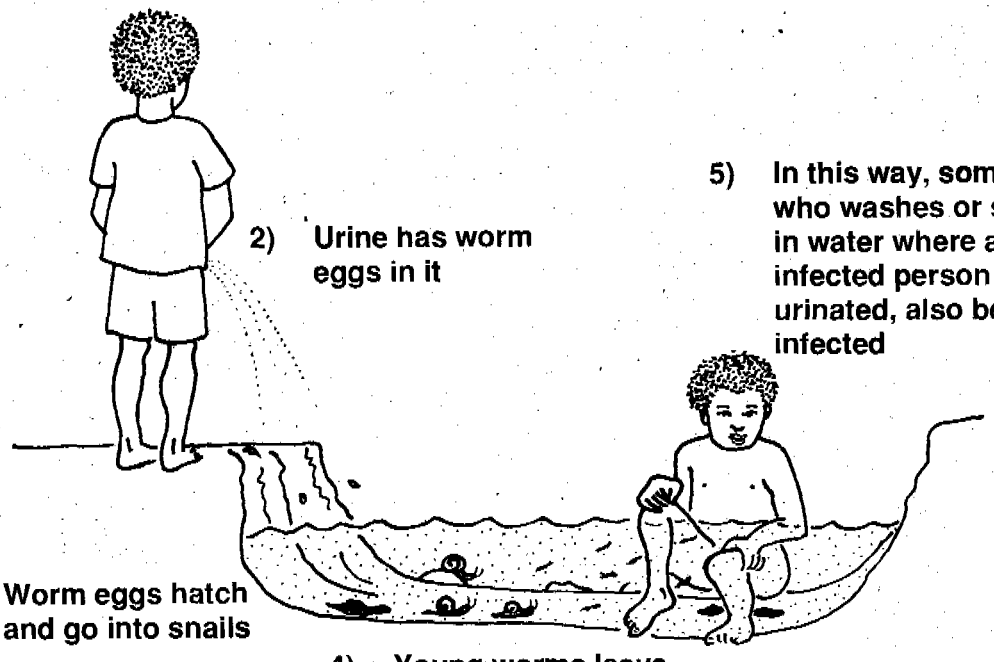


NEW WORDS!	
DISINFECT	to clean something from germs
ENVIRONMENT	surroundings
FAECES	waste matter discharged from bowels
GERM	an organism that causes diseases
HEALTH	good condition of body
HUMID	moist, damp
HYGIENE	principles of maintaining health
MULTIPLY	breed, or produce large numbers of
PARASITE	an animal or plant living in or on another and drawing food directly from it
PREVENT	stop from happening or doing something
REDUCE	making or become smaller or less
RESISTANCE	power against something
WATER-BORNE DISEASES	illnesses caused by germs living in water

ANNEXURE

BILHARZIA

1) Infected person urinates in water



2) Urine has worm eggs in it

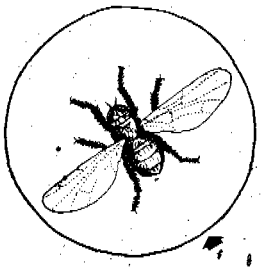
3) Worm eggs hatch and go into snails

4) Young worms leave snails and go into another person

5) In this way, someone who washes or swims in water where an infected person has urinated, also becomes infected

DIARRHOEA

Waste dumped near the house attracts flies and insects



Flies enter the house, infecting the baby with the disease

Person goes to the toilet

Person preparing food after being to the toilet without washing hands - in so doing she spreads the germs to the food

Children eat food with germs and get infected