

FOOTSTEPS

No. 1 DECEMBER 1989

WATER

We tend to expect that water schemes to make cleaner water more easily available will be welcomed by all. But all too often they may not work out as planned. There are many things to consider before introducing changes to water supplies which may have remained little changed for generations. Collecting water may provide many women with a meeting place. In societies where it is the younger women who collect the water, the water hole may even be the main centre for courtship! Here we look at some examples of different water schemes and what can help them to succeed...

COMMUNITY WATER PROGRAMMES

by Richard Franceys

WE ALL NEED clean water to be healthy - and we want that clean water as close as possible to our homes in order to save time, especially the time of women. The difficulty is to improve the delivery of clean water in such a way that it will **stay** improved for many years to come.

Case Study 1: Giripagama

Giripagama is a new village in Sri Lanka, part of the ambitious "Million House Programme", and it needed an improved water supply. The government agency responsible constructed a new open well in the centre of this village of 53 houses. It cost £400. The people complained that they could not drink this water because of the high levels of "mica", which gave it a bad taste. The well was only used,



£400 worth of unused well.

therefore, for washing in the dry season, when the stream running through the centre of the village dried up.

An alternative scheme was then proposed by the villagers. This would bring piped water, from a perennial stream further up the valley, to standposts situated in the village. The cost of this scheme was estimated to

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be £2,500 but this was too much for the government to pay.

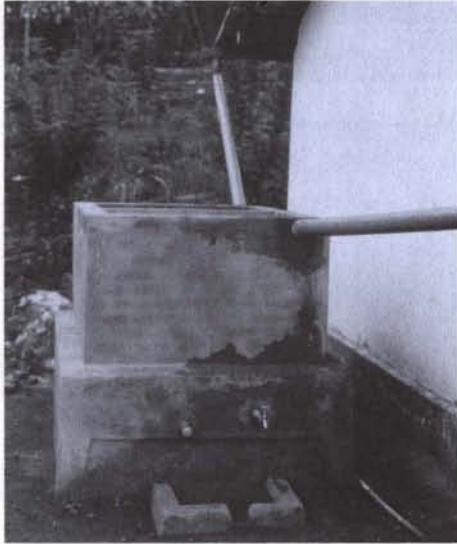
Then along came a foreign agency who wanted to try out a new system. They proposed to provide each house with a rainwater catchment tank at a cost of about £100 each. This total cost of £5,300 was thought to be acceptable because the money was being given by foreigners, although it cost a lot more than the scheme the people actually wanted.

The cement-plastered brick catchment tanks were built by contractors, not by the people. They had been carefully designed, except for the roof, which

COMMUNITY WATER PROGRAMMES

was just a couple of pieces of galvanised, corrugated iron, weighted down with a piece of timber.

Two years after the scheme was completed, the village President made it quite clear that the villagers did not



Mosquitoes breed in this water tank.

like the tanks. He reported that “nobody uses the tank water for drinking, only for washing”. The people were, therefore, continuing to use the local stream for drinking water. There was excreta on a stone in the middle of the stream and it is unlikely that there had been any measurable health benefits resulting from the new rainwater tanks.

The main reason behind the people’s dislike of the tanks was the mosquitoes. Because the roofs were not properly fitted and sealed, mosquitoes were breeding in the water tanks. Therefore the water could not be drunk and also the people could not sleep because their windows were not screened against the mosquitoes.

So the pictures of Giripagama show a well which is not being used, and rainwater tanks, which in this case, do not provide clean drinking water.

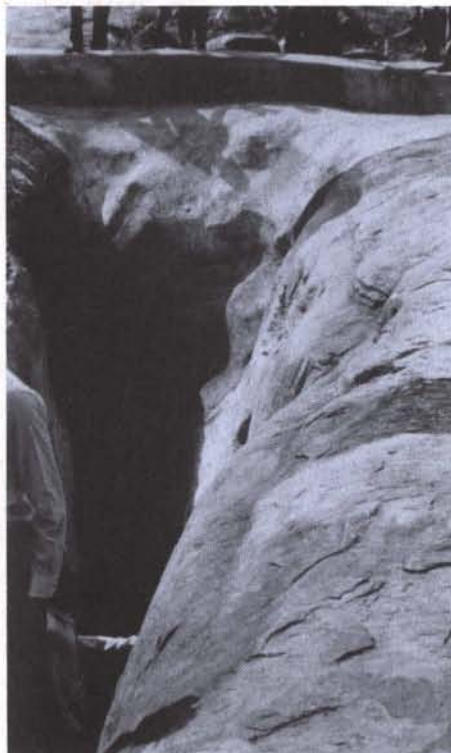
Case Study 2: Camp 28

But now, let’s move on to another village, “Camp 28”, in Southern Sudan. Some years ago a Tear Fund worker, Roger Sharland, was setting up an agricultural extension programme in the district.

Visiting Camp 28, the development workers explained what they had been doing in other areas. The people were interested in improving their agriculture, but their real problem was water. The project staff, who were really agriculturalists, realised that they had to take this need seriously. The community showed them their water sources, which dried up in the dry season: a shallow well, a stream about 3 km away and finally some nearby rocks where a crack formed a natural cistern.

After further discussions and visits it was decided that it would be a good idea to try to increase the size of this natural cistern in the rocks. This was very near to the village and would cost less to improve.

Work did not go smoothly; there were various delays. But eventually all the rubbish and soil which had accumulated in the crack was cleaned out. This increased the size of the cistern but water still leaked out. Following advice from an engineer on a nearby project, the bottom of the cistern was sealed off with stone and cement and the open end was closed with ferro-cement. The agency supplied the materials and expertise but it was the people who planned and carried out the work.



The natural cistern at Camp 28.

As a result of this cistern, water from the first rains was collected, so that the people could move back early from their dry season homes. As a result, work in their gardens could be started several weeks earlier than in previous years, leading to much improved crops.

What makes for success?

So we have two villages, one where a lot of money was spent, without helping the people very much, and another where almost no money was spent but lives were changed as a result. What made the difference was community participation.

It is the local people themselves, not those trying to help them, who have the most important role. The community itself must make the first decisions, raise the initial funds and begin the work of organising and maintaining the work.

How to encourage community participation

The first step in improving any water supply, is to get people together to discuss the problems and set up a Village Water Committee or a Village Development Committee, if one does not already exist. Try to make sure that there is a wide range of people represented on the committee, young and old, richer and poorer, health workers and teachers, but make especially sure that women are well represented. They are the ones who normally have to do all the work of bringing water to the home.

Choose a Chairman (or Chairwoman), who will be responsible for organising and conducting the meeting. Also think about having a Secretary, who takes notes of the meeting.

Once the Water Committee is established, it can begin to discuss the problems. It is best to start with what is available. Try to avoid any “grand ideas” about massive new water systems! First, survey all the existing water sources. School children can

COMMUNITY WATER PROGRAMMES

often be a great help to the Committee in gathering information about the sources, perhaps as part of a school project. Then consider what is wrong with these existing sources: perhaps they are dirty, or too far away, or maybe they dry up in the dry season. Then is the time to discuss what could be done to improve these existing sources.

Work with what you have

List the skills which your community has, list the materials which you have and think about how much people could give to pay for improvements.

It is very nice to have the government, or outsiders, come in and give you a new water system - but the problem is that they always go away again without leaving money for maintenance and repairs.

When you have a good idea of the possible alternative improvements, and what you can do yourselves, then call in the outsiders for technical, and maybe a little financial, help. These people could be from the government Rural Water Supply Programme or from a non-governmental organisation which has experts in water supply.

But don't let them take you over - remember that it is *your* project to improve *your* lives. This approach often seems to take longer - maybe a year or two go by in discussions. But the end result will be a scheme which is owned by the community and which can be sustained by the community.

Richard Franceys, who previously worked for Tear Fund in Southern Sudan, is a water engineer in the Water, Engineering and Development Centre, Loughborough University of Technology.

The Water Programme in Saradidi Rural Health Project

The Saradidi Rural Health Project is found in Western Kenya, near the shores of Lake Victoria. It was begun almost ten years ago. It has strong links with the 61 villages within the project area, nearly all of which now have their own health worker and an agricultural worker. From the beginning, the community has been fully involved in deciding the priorities of the project.

The main health need of the area is the supply of clean water. At present the water sources are mostly seasonal and polluted. During the dry season many communities have to walk up to 6 kms to collect water. Although to outsiders this was seen as the most important key to good health, the community had different priorities.

What are the people's priorities?

First on their list of priorities was health care. So a clinic was built with the help of the local people and each village chose people from the

community to be trained as health workers. This part of the project has been very successful. Other priorities were seen as income generation, evangelism and agriculture.

So the project began training in various crafts. Two evangelists were employed. Agriculturalists established a network of agricultural workers. It was only then, as these other priorities were realised, that the community began to work towards improving water supplies.

Village Water Committees were formed. Hand-dug wells were seen to be the most suitable way of providing water. The project agreed to provide support and to cap the wells. But first the villages had to agree to provide building materials, labour and a small sum of money. Some wells have been completed. Several were unsuccessful, because they were wrongly sited.

Progress was slow, since no-one had any experience in water programmes. But now, with Tear Fund's support, they have a water engineer to help. Tim and Ros Holmes have recently settled at Saradidi. With the community now motivated and eager to move forward, Tim hopes to help provide shallow wells. He writes:

"Leadership plays an extremely important role in motivating the community. An influential leader can make all the difference when there are problems to overcome.

Some members of the community are excellent speech-makers, full of promises and commitment, initially.

However, these people may be very slow to get involved in the manual work. Often the real advances are made by others who are simply willing to serve.

Some of the best responses come when working with small women's groups. Women are often more willing to help work. Small groups



avoid the political conflicts which can often arise over the siting of the well.

The rich are often reluctant to join in a community scheme, preferring to build themselves a private rainwater catchment tank."

Tim plans to use a hand-drilling rig, known as a Wafer Rig, rather than continue with the hand-dug wells. This will be safer and cheaper. He recommends that the Project use the new Afridev hand pump.

Saradidi provides another useful example of how important it is to work with the community, when they are ready and motivated.

WATER - SOME OF THE PROBLEMS

The World Health Organisation has estimated that 80% of all sickness and disease in the world is caused through lack of clean water and poor sanitation.

This includes the effects of diseases carried by insects who breed in water,



FROM THE EDITOR

Welcome to the first edition of **Footsteps!** Along with the shorter name, we have a new logo on the front page: a diagram of footsteps showing how all of us have to walk, step by step, towards the wholeness and health which God has planned for us - into the light.

The topic of this issue is water. I hope there is something of use, whatever the work you are involved in. Please write in with your comments and suggestions. Do share experiences from your work - whether good or bad. We can all learn from each other.

Because Footsteps is no longer just covering health issues, we have increased the number of pages to twelve. The middle section is designed so that it can be pulled out and used with those who have little English. You may find it useful for teaching.

Our next issue will be looking at the problems of mis-use of medicines and pesticides.

I am very happy to have taken over as Editor and look forward to hearing from many of you.

Isabel Carter

and diseases caused through lack of washing.

One of the symptoms

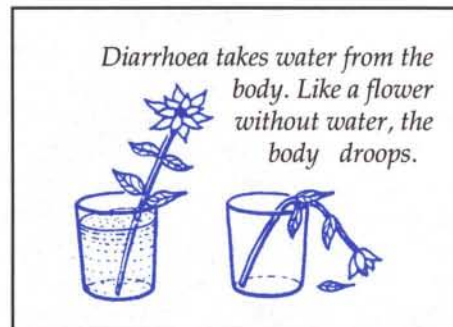
Diarrhoea is just one of the symptoms of many of the diseases carried in water. It is the body's way of trying to get rid of the infection. Diarrhoea is so common it often deceives parents and health workers. But one in ten children may die from it. If the water and salt lost through diarrhoea are not replaced, the body will become dehydrated. Medicines seldom help.

But there is a simple solution. Add a pinch of salt to 1 litre of clean water. Add a handful of sugar (6 teaspoons) because this helps the body to absorb the salt and water.

The proper balance of clean water, salt and sugar can put right nearly all attacks of diarrhoea.

Explaining the dangers

Here are two simple teaching aids which may help to convince mothers of the need to prevent dehydration.



Fill a clear plastic bag with water. Draw a picture of a happy baby on the bag with a water-proof felt tip pen.

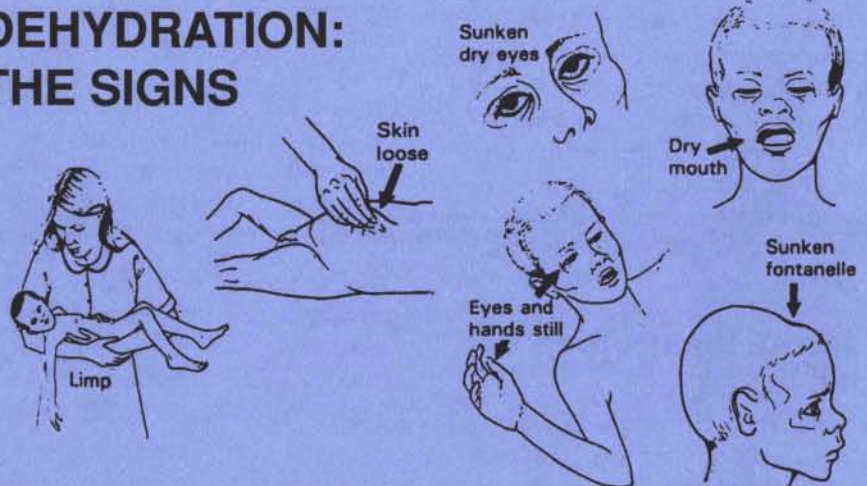


Then make a small hole in the bag. The water will slowly drain out, as with diarrhoea, until the baby looks wrinkled and ill.

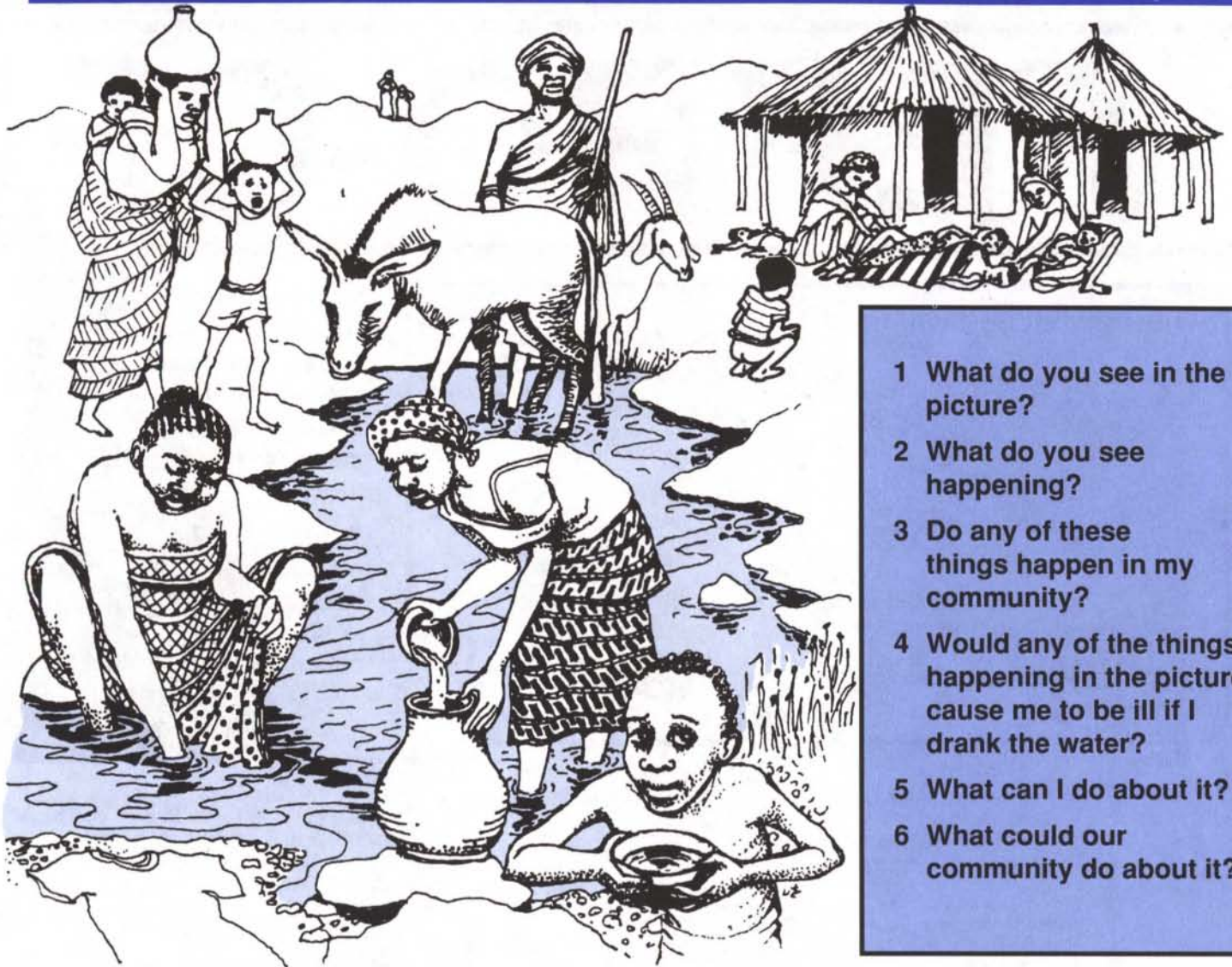


Ask one of the mothers to pour water into the bag faster than it is flowing out. The baby will become normal again. This shows what happens with oral rehydration. Now cover the hole with some tape or plaster. The diarrhoea has stopped and no more oral rehydration is needed.

DEHYDRATION: THE SIGNS



From "My name is today" by David Morley & Hermione Lovel (TALC/Macmillan)



- 1 What do you see in the picture?
- 2 What do you see happening?
- 3 Do any of these things happen in my community?
- 4 Would any of the things happening in the picture cause me to be ill if I drank the water?
- 5 What can I do about it?
- 6 What could our community do about it?

Making your water cleaner...

1

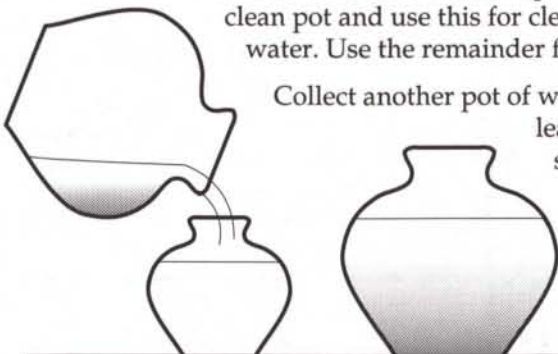
THE 3 POT SYSTEM

This is a very simple system for providing cleaner water. It will not provide pure water, but some of the diseases will be removed.

DAY 1: Collect 1 pot of water and leave it to settle for 1 day

DAY 2: Pour off the clear top water into a clean pot and use this for clean drinking water. Use the remainder for washing.

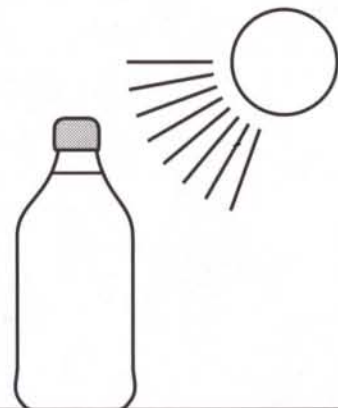
Collect another pot of water and leave it to settle for 1 day.



2

USING SUNLIGHT

Many water-borne diseases can be destroyed by simply filling clear glass or plastic bottles with water and leaving them in strong sunlight all day.



FERRO-CEMENT TANK

This is what you will need:

- (a) strong wooden poles or timber - at least 2 metres long
- (b) clean sand
- (c) cement
- (d) 2 short lengths of pipe - one with a tap
- (e) galvanised wire mesh (chicken wire) with 12mm openings
- (f) galvanised fencing wire
- (g) at least 2 flat plasterer's trowels

Water tanks store rainwater from roofs. Tanks made of ferro-cement are fairly cheap, simple to make and easy to repair.

You do not need to use a lot of cement

because of the wire reinforcement. The cement mortar can be as thin as 50mm.

At first fill the tank very slowly. Cover the tank with a roof to keep out dirt and insects.

Congratulations!

Let us know how you got on!

REPAIRS

If any cracks appear, empty the tank, chip away on each side of the crack and replaster. Again keep it damp for 2 weeks.

Decide on the size of the tank. It should not be more than 1.5 metres high for your first try.

Make a circle of the chosen diameter using a rope and 2 sticks.

Drive in wooden posts at 250mm intervals around the inside edge of your marked circle.

Mix up the mortar...

3 parts sand 1 part cement 3/4 part water

The mix must not be too wet.

While the mortar is hardening, you must keep it damp - for several days if possible. Old sacks or matting can help keep it damp.

6

Lay 2 layers of wire mesh across the floor of the tank, between the poles. Leave at least 300mm of mesh to bend upwards.

7

Prepare the walls by winding at least two layers of mesh between the poles, spiralling upwards.

Make sure the holes are not exactly opposite each other. Tie the mesh together with fine wire.

8

Begin plastering the tank walls with the mortar mix. This needs at least two people - one on the inside and one on the outside. They work together to stop the mortar falling through the mesh.

The mesh should be strengthened by winding around ordinary galvanised fencing wire.

Fix a pipe for the tap in place 100mm above the floor and another at ground level for a washout, which is normally kept plugged.

You must keep the cement damp and shaded. Drying too quickly will cause cracks.

10

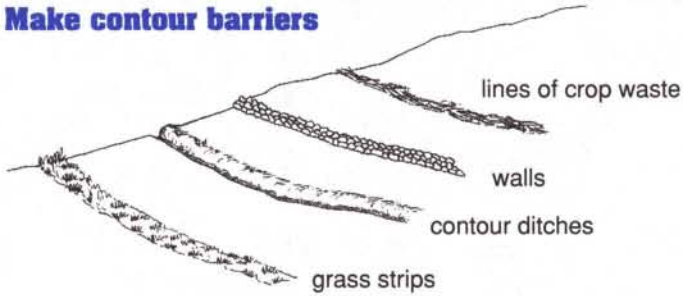
Remove the poles carefully, fold down any loose mesh and plaster, finishing off with a top coat for the floor.

Keep it damp for at least two weeks before filling.

12

GROWING VEGETABLES WHEN THERE IS LITTLE WATER

1. Make contour barriers



2. Squeeze test

Squeeze a handful of wet soil...

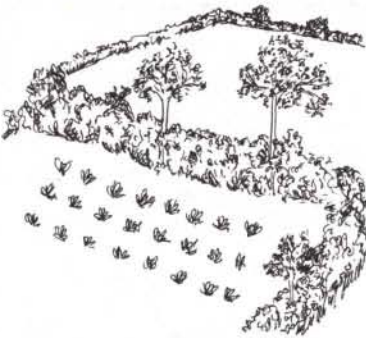


Sandy soil - crumbly. Will **not** store much water



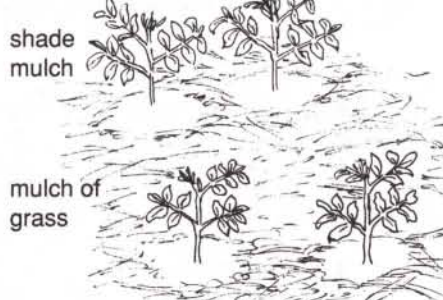
Clay soil - moulds together. **Good** for storing water.

3. Keep the water in the soil



Plant hedges, trees and windbreaks.

4. Use mulches



If termites are a problem, keep the mulch away from the stems of young plants.

5. Preparing the soil

troughs

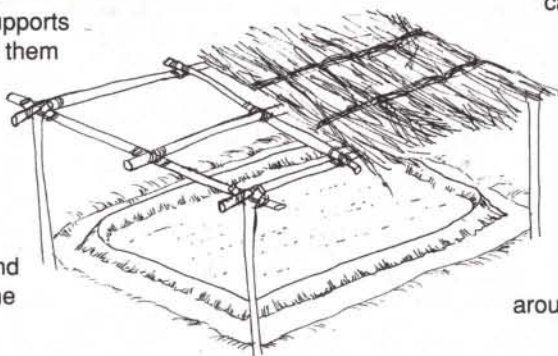


sunken beds



6. Building the nursery

Use strong supports and tie or nail them together.



Build a small raised lip round the edge of the nursery bed

Tie shade loosely so that it can gradually be removed later.

Dig a trench around the nursery.

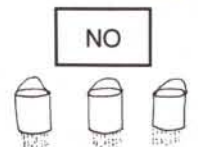
7. Planting the nursery

First soak the soil.

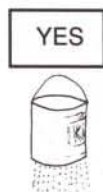


Plant seeds thinly in lines 15cm apart.

8. Watering

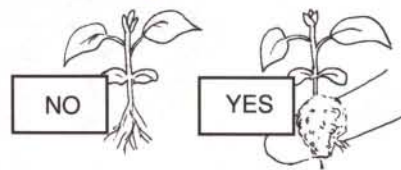


Watering a little every day means shallow roots.



Water a lot every 3 days for deep roots.

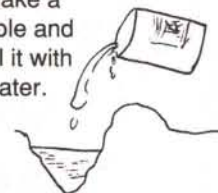
9. Planting out



Use a container to carry seedlings out to the field.

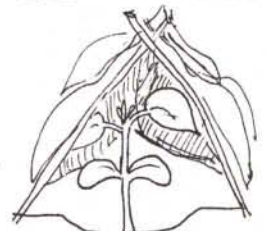


Make a hole and fill it with water.



Press seedling into soil very firmly, leaving a small hole for watering.

Use sticks & grass or leaves to make some shade.



Growing vegetables in dry conditions - in areas of low rainfall or during the dry season - can present problems. Because of this, local production is usually low and the market value is high. Try vegetables such as tomatoes, kale, onions and suitable local crops. Here are some tips for growing vegetables when water is scarce. The diagrams on page 8 show all the different stages.

HELP THE SOIL TO STORE WATER

Make sure that, as far as possible, every drop of rain that falls has the chance to enter the soil. If you are growing vegetables on sloping land, stop any rain, throughout the year, from running away over the soil surface by making contour barriers.

Use grass strips, hedges, walls, ditches, ridges, lines of crop waste - anything at all to help the water to soak into the soil.

Try to avoid areas with sandy soil. This kind of soil does not store water well. Soil which contains some clay will store water much better and is

usually more fertile too. (A useful test is to wet the soil and squeeze it in your hand. If it holds together well, it contains some clay).

Soils rich in organic matter are better at storing water. So add plenty of manure and compost (rotted vegetation) if possible.

KEEP THE WATER IN THE SOIL

Once the water is in the soil, you want to keep it there as much as possible. When the soil temperature is high, more water will be lost. So try to keep the soil shaded as much as possible. Growing hedges, windbreaks and trees around the garden will help.

Mulching covers the soil between the vegetables. Many things can be used as mulch - eg grass, rice straw, coffee

husks and sawdust. Mulching is very important as it keeps the soil cooler and less water is lost. It helps in other ways too - it keeps down weed growth, protects the soil surface from heavy rain and adds fertility to the soil. If termites are a problem, keep the soil around the stem clear of mulch.

PREPARING THE SOIL WELL

When water is scarce, do as little soil preparation as possible. The more the

soil is tilled and turned over, the more water and organic matter will be lost. Clear weeds and break up any crust on the surface or hard pan beneath. In a rich, well covered soil, tillage may not be needed at all.

You may have seen vegetables grown on ridges or raised beds. These are not usually suitable for dry conditions. Instead, prepare troughs or sunken beds. These will help to hold all the water from rainfall or hand irrigation.

THE NURSERY

Many vegetables are grown first in a nursery. Young plants are weak and need the extra care which a nursery can give. You can also use a nursery to raise young plants, just before the rains are due to begin.

Deciding where to put a nursery may not be easy. Do you put it near the water source, or near your house? How far will you have to carry water?

Protect the seed bed from heavy rain or flooding by digging a small trench around the seed bed.

Build a shade, which is 1m wider than the seed bed, using grass or palm leaves.

Build a small lip all around the edge of the seed bed. This will save every drop of water which you use, and will stop seeds from being washed out by careless watering.

PLANTING OUT THE NURSERY

Soak the soil very thoroughly until the top 5cm is wet. Sowing thinly in lines about 15cm apart will usually give good results. Keep the soil damp until the seedlings germinate. (You could cover the seed bed with a light mat of grasses to stop it drying out, but you must check every day, and remove the cover as soon as the seeds germinate).

"TEACHING" SEEDLINGS TO GROW IN DRIER CONDITIONS

Avoid watering the seedlings every day. Instead soak the soil two or three times a week, so that the soil is wet to 15cm and below. This will encourage the roots to grow deeper. Try to water in the evening.

As the seedlings grow, gradually remove the shade until there is no shade at all the week before planting

out. In this way, the seedlings are "taught" to tolerate full sun.

PLANTING OUT

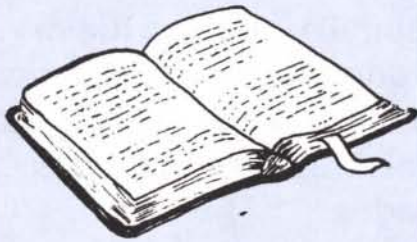
Always plant out in the late afternoon. Remove the young plants very carefully to keep as many roots as possible. Make a small hole and fill with water. Carefully place the seedling into the hole and firm the soil. Make a small shade, using large leaves, to protect the young plant

from the hot sun until the roots have started to grow. You may need to water once or twice - always in the late afternoon.

Mike & Isabel Carter.

Mike Carter works with T-CORD, Bishop Burton College of Agriculture, North Humberside.

DO READERS HAVE ANY OTHER USEFUL TIPS?



In this issue we have been looking at water. In the Bible, water is used as a symbol to show several different aspects of God's power.

It can be used as a **symbol of cleansing** as in the ceremonial washings of the Old Testament sacrificial system (eg Exodus 30:18-21, Leviticus 16:4 and 24, 17:15).

It can be used as a **symbol of destruction** Floods are very destructive. (eg The great flood in the time of Noah; Genesis 6-9:17)

But the most common symbol of water is as a **symbol of blessing**. One of the many passages in the Bible which uses water to symbolise blessing is Isaiah 35. Much of the book of Isaiah concerns Isaiah's prophecies of God's judgement on the sins of his people. But this chapter looks ahead to God's glorious promises to those who trust in him.

Read Isaiah 35:1-7

Why did the desert suddenly burst for joy?

What were the signs of this joy - both in the desert, and in the lives of those who believe?

Read Isaiah 35:8-10 The highway is God's path for us - the path which leads to eternal life.

What signs are there in your life of the joy of trusting in God?

Remember that Isaiah wrote this prophecy hundreds of years before the coming of Christ. Just as the desert brought forth streams and springs of water because of God's presence, let us also be filled and overflowing with the joy of believing and trusting in God.

Following our last issue on ways of communicating, readers were invited to share their experiences of using radio as a means of communication. Pamela Clifton-Reitmeier writes in from Chad...

ON THE ROAD WITH RADIO RURALE

IN THE VILLAGE OF MAHARA in Central Chad, a small crowd watches in anticipation as the radio team sets up microphones and speakers. African music shatters the still air and onlookers begin to move in time to the lively beat. The crowd swells as the villagers abandon their fields and fishing boats and are drawn to the music. Kam-Kam, the radio compere, lifts his microphone to silence the crowd. The competition is about to begin - with a riddle:

"On his wedding day, a husband offers his young wife a very special wedding gift: One litre of water, six teaspoons of sugar and a teaspoon of salt. Why?" Murmurs in the crowd. "The water is prayer. The sugar is friendship. The salt is children." "The husband is a trader. He sells sugar, salt and water." "The husband wants his wife to prepare tea with sugar and salt for him to be more virile...!"

The village midwife comes up with the answer: "It is to protect their children from dehydration when they get diarrhoea." "Right answer!" Cheers from the crowd.

Radio RURALE is on the road, travelling from village to village with an entertaining package of competitions, games, songs and poetry. Once a month the radio team goes out to a different region of the country, gathering programme material in 10 different languages. They record competitions, interviews, debates, local music and traditions, then return to the studio to put together daily broadcasts with an educational bias.

The programmes have a local flavour and cover issues of concern such as agriculture, animal herding, water, health, education and protection of the environment. Their popularity is spreading like bushfire. Mass communication in Chad barely exists. Only 18% of the population can read or write. Over 110 different dialects are spoken. Religious and cultural differences between a variety of ethnic groups are great. The school enrolment rate is very low and the drop-out rate is extremely high. The Government set up Radio RURALE as a department of the national Radiotchad in 1986, as it was conscious of the need to reach out to isolated, rural communities scattered across the country.

Radio RURALE recognises that information either does not reach many rural people or does not convince them. Their target audience therefore is the unconvinced or the uninterested. They try to learn as much about the traditions of the villagers as they can, and use familiar images - the poetry of the village - to put across their messages.

Radio RURALE is supported by UNICEF, the French Government and FAO.

Pamela Clifton-Reitmeier works with UNICEF, N'djamena.



Dear Ms Carter

I congratulate you on behalf of the staff and students of Christian Hospital, Chandraghona, Bangladesh, for your new assignment as Editor.

I want to assure you of my contribution to Footsteps from our experience at the grass root level. I will keep in touch with you and send our experience from time to time.

Dr S M Chowdhury

**Dear Footsteps**

It is a great pleasure to receive Footsteps to Health. Our work in the highland region of Peru, based at Cusco deals with health, agricultural and illiteracy problems. The lack of safe water supplies and excreta disposal systems means that 98% of the rural population suffers from intestinal diseases caused by parasites, and many children under the age of 5 die from dehydrating diarrhoea each year. Clean water

supplies, good sanitation and hygiene education could result in substantial health improvement.

The church here struggles to reach the wholeness called for by Christ, using all the means available to it to promote healing. The church's purpose is to develop the potential of all persons, restoring them and their communities to right relationships.

Eduardo Gil Mora

Dear Footsteps

Thanks for Issue No 9. I am writing from Shongwe Mission Hospital in the eastern Transvaal province of South Africa. Our hospital serves about 180,000 people and this figure continues to increase, particularly since we have considerable numbers of refugees from Mozambique, who continue to arrive every month. The hospital serves 19 Primary Health Care Clinics, and we give continuous in-service training to the nurses who run these clinics.

In May we started a Care Group Project. Care Group motivators are trained in nutrition and health care. They try to establish women's groups in the villages, sharing their knowledge. This project is exciting but slow-going and requires a lot of input. We find Footsteps really useful for these Care-Group motivators.

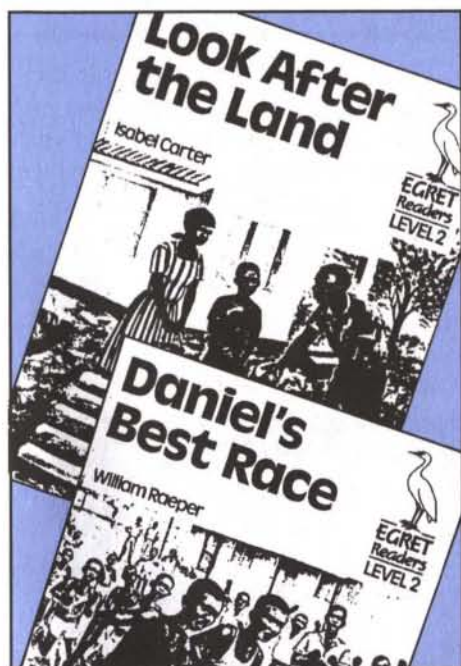
Do readers know of other educational materials which we can obtain?

Dr M H Barry

BOOKS

Egret Readers

A new series of school readers have recently been brought out by Macmillan Publishers. Known as the *Egret Readers*, they are all concerned with different topics about our



environment. They look at such subjects as tree planting, soil erosion, the effect of smoking on health, disabilities, wildlife conservation, diarrhoea and marketing local crafts.

They are written, primarily, for school children as supplementary readers. Level 1 are for children in the upper levels of primary schools, and Level 2 are for children in the lower levels of secondary schools. Each book consists of an entertaining, well illustrated story, followed by exercises, practical follow-up activities and discussion.

However, because of their subject material, practical approach and relatively low cost, these readers would also be very helpful for use with women's groups, health workers' and farmers' groups. At present eight readers are available. This figure is likely to rise to about 25 within a couple of years.

Available world-wide through Macmillan Distributors. For further information contact: Macmillan Publishers, Sales Department, Houndmills, Basingstoke, Hants, RG21 2XS, England.

Water for Rural Communities - Helping People Help Themselves

by Briscoe and de Ferranti, 1988

This is a small book published by the World Bank which says that "it is the local people themselves, not those trying to help them, who have the most important role. The community itself must be the primary decision maker, the primary investor, the primary maintainer, the primary organiser and the primary overseer." It is strongly recommended for anybody involved in the planning of water supply projects. This should be widely available in many countries.

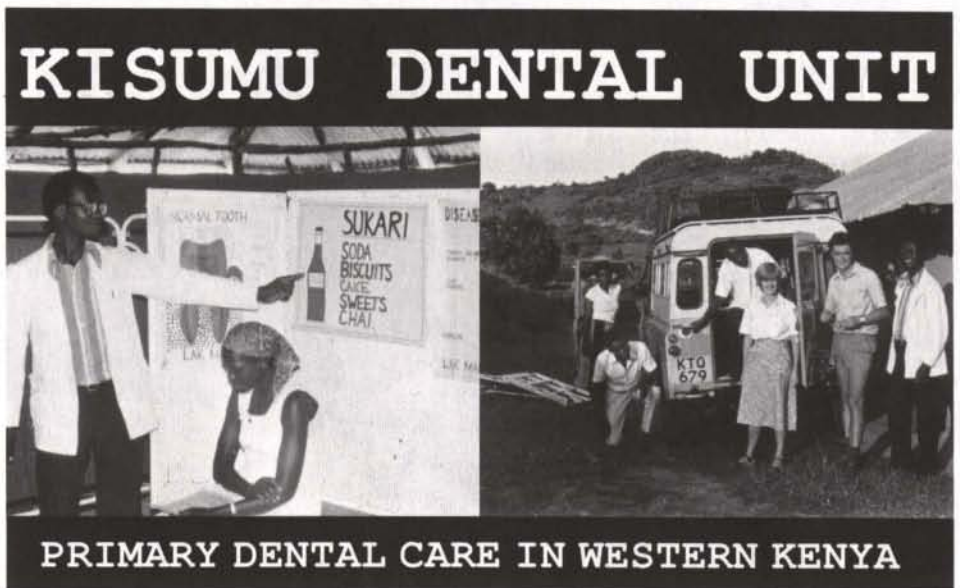
If you have difficulty in obtaining it contact: World Bank, 1818 H Street, N.W. Washington DC 20433, USA.

Reviewed by Richard Franceys

SOME 20 YEARS AGO, a clergyman in Kisumu, Western Kenya, faced a growing problem. Regularly people would come to his door "suffering from teeth". He was unable to help them but what could he do? Local help was not available so he arranged for two dentists to come from the UK to start the Dental Unit in the Dioceses of Maseno North and South.

News of this service quickly spread and the demand from the people of the area was very high. Basic equipment was purchased and buckets were filled with extracted teeth! Plastic replacement teeth were made if requested.

As the years passed, dentists would come from the UK for periods of two or more years. The demand for treatment continued to rise and also for treatment to save infected teeth, rather than just removing them. (Many local people still do not realise that teeth can often be cleaned of their infection and repaired.) But transport to Kisumu, money for the treatment and the availability of the dentist were



the limiting factors for many, and it was only the fortunate few who were able to get help.

(Isaiah 61:1-3) and dental care forms part of this process. This is explained to all who assemble for dental care under the community project.

The next step is to bring an understanding about the cause of dental problems. Many people believe bad water, worms or groundnuts cause bad teeth. It is news to them to discover the real cause is sugar in food and drinks. Often sugar is taken without realising it. Biscuits, cakes, sweets, tea and sodas all contain sugar. This needs to be cleaned from the teeth after eating because:-



In 1981 steps were taken to extend the work of the Dental Unit into the community. Tear Fund provided a Land Rover and portable equipment and, for two days a week, the Anglican church network on the Northern and Eastern shores of Lake Victoria became the basis of community dental care, using churches and schoolrooms as temporary clinics. The real aim was to prevent dental problems before they started.

God asks us to minister healing in all its fullness

**SUGAR + MOUTHGERMS
= ACID
= HOLES IN TEETH**

If people remember this formula they can do something to help themselves. Removing teeth will cure a short term problem but will not have a long-term benefit. God looks at us in the long term and we need to care for our bodies in the same way.

Neil McDonald, author of this article, worked as a dentist in Kisumu for 5 years with Tear Fund. He now works in Wimborne, Dorset.

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