

# FOOTSTEPS

No.13 DECEMBER 1992

CLEAR VISION

## Eye Injuries & Infections

*Material abridged from lecture notes kindly supplied by Dr JDC Anderson*

OUR SIGHT is very precious. It is wonderfully protected, both by its position within our skull and by several mechanisms such as blinking and tears. Together, these keep the front of the eye free of harmful dust and foreign material and, in addition, tears contain a good natural antibiotic. But because of its exposed position, the human eye may suffer injuries and infections of many kinds. In many countries stone throwing and playing with sticks by children is the cause of much

needless loss of sight. Health education is the best way to prevent many eye injuries.

Any injuries or infections of the eyes must be treated seriously. They should normally be referred to expert medical help. But if such professional help is not available, here are some simple steps that can be carried out to diagnose and treat common eye injuries and infections.

### EYE INJURIES

The seriousness of an eye injury can be gauged by three things...

- the history of the injury
- the amount of damage which is immediately visible
- the effect on vision.

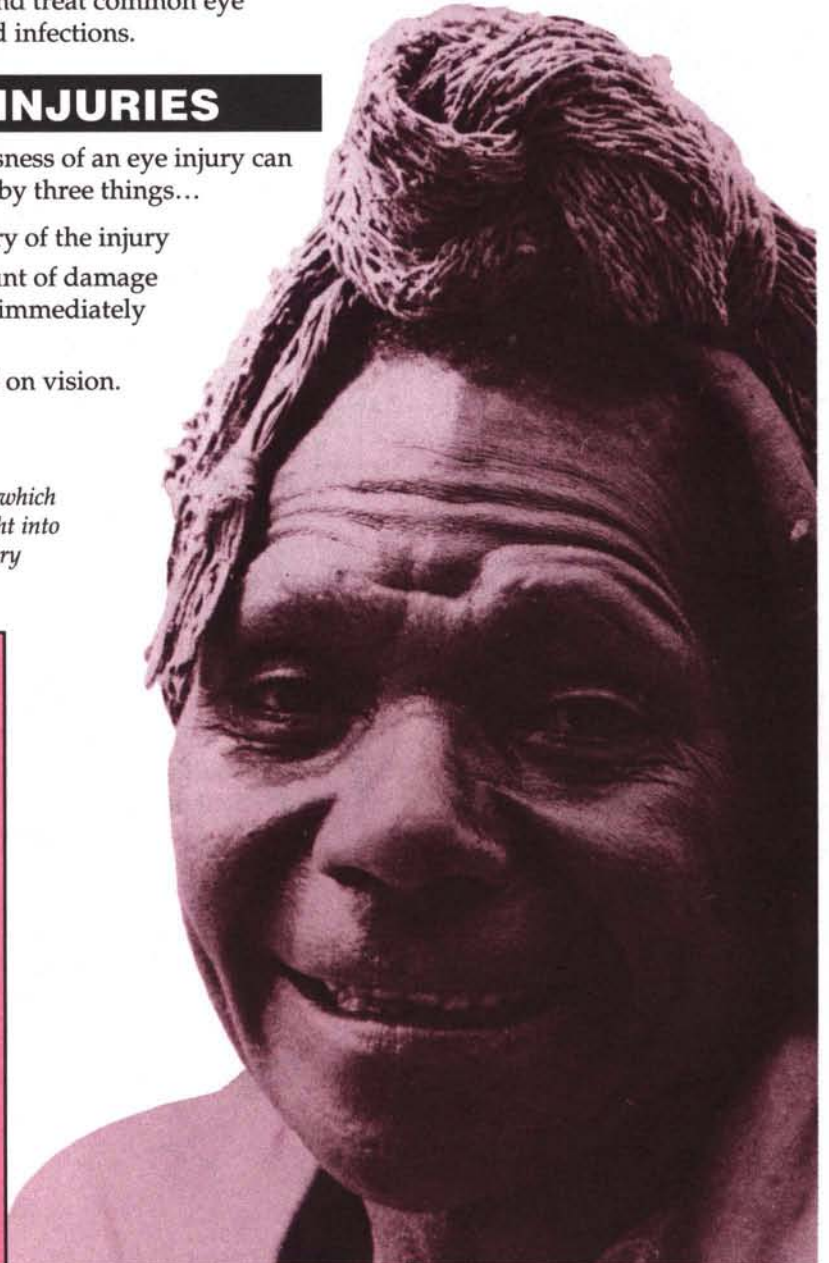
*Healthy eyes which give clear sight into old age are very precious.*

### Foreign bodies

These are the commonest eye injuries. The problem begins suddenly – people often complain that ‘something got into my eye.’ There may be pain – especially on blinking – either because the surface layer on the front of the eye has been damaged or because it is still being damaged with

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## FOOTSTEPS

*Footsteps* is a quarterly paper linking health and development workers worldwide. Tear Fund, publisher of *Footsteps*, hopes that it will provide the stimulus of new ideas and enthusiasm. It is a way of encouraging Christians of all nations as they work together towards creating wholeness in our communities.

*Footsteps* is free of charge to individuals working to promote health and development. It is available in English, French and Spanish. Donations are welcomed.

Readers are invited to contribute views, articles, letters and photos.

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### The parts of the eye...



each blink if a sharp foreign body is hidden under the eyelid. There is some watering.

There are three common places where a foreign body may have lodged. It may be on the cornea, under the eyelid, or even inside the eye. This last site is rare, but it must be ruled out urgently by an expert if a hammer and chisel was being used and there is evidence of a tiny entry wound – even if sight is apparently normal. Tiny splinters of metal within the eye will lead to enormous problems if not discovered quickly.

To find the foreign body you need a good light and, ideally, a magnifying glass. First the cornea must be carefully examined. A small foreign body may show up more clearly after using a fluorescein dye – if available. Then, even if the foreign body has been washed away, damaged epithelium (the outer layer of cells covering the cornea or the conjunctiva) will be stained bright green. If no foreign body is found on the cornea, it is vital to check the inner surfaces of the upper and lower eyelids thoroughly. To do this properly it is necessary to turn the eyelid back – a skill known as 'everting'.

### Everting the upper eyelid

This is an important skill to master. (Practise the skill before you need to use it on a patient). There are several good ways but I describe the 'match stick' method here. First tell the patient to keep looking down the whole time. With one hand a clean match stick is laid horizontally along the upper lid skin crease (1). With the other hand, grasp the eye lashes of the upper lid between finger and thumb (2). Gently fold the lid outwards and upwards over the match stick (3). The match stick can then be gently removed and the lid is kept in the everted position by pressing the lashes against the skin. The patient must keep looking down, or the upper lid may flip back.

Either hand can now be used to hold the eyelid in place so the other hand is free to work at removing a foreign body if one is present (4).

### Removing a foreign body

If the foreign body is on the conjunctiva, use the corner of a small piece of clean cloth or a piece of clean folded paper to gently lift it off. Or wash it off with clean water. Removing a foreign body from the cornea is more difficult. First try

### Everting the upper eyelid...

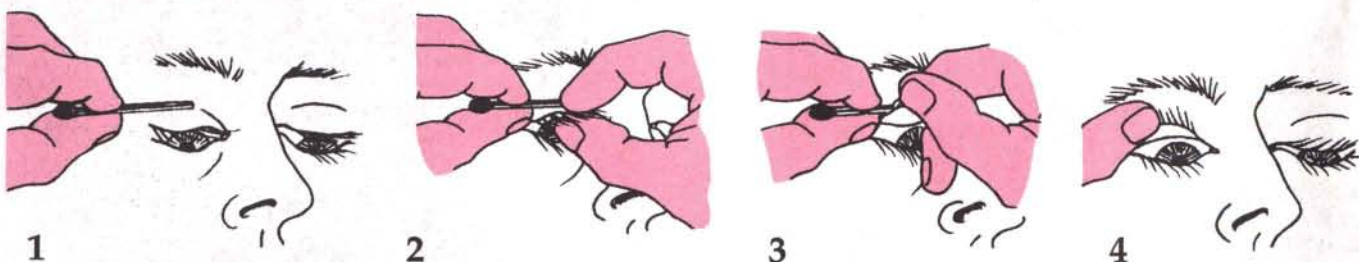




Photo: M McGavin

Eye drop application.

washing it off with clean water. If the foreign body is slightly embedded, it can sometimes be removed with the light touch of some small, sterile instrument. A sterile needle mounted on a 2 ml syringe is often used. The needle is always directed **across** the eye, **never towards the eye**.

This is obviously a very delicate operation needing a steady hand. Use good light and a magnifying glass. Insist that the patient fixes their good eye on some nearby object to keep both eyes still. It is safer and kinder to use one drop of anaesthetic in the eye – for example, amethocaine 1% eye drops. A further tip is to steady your hand lightly on the patient's face or forehead. After successfully removing the foreign body it is wise to put a little antibiotic eye ointment into the eye.

I cannot stress too strongly that this operation should only be attempted if the foreign body is **lightly** embedded.

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**If a foreign body is deeply embedded, you could cause great damage. In this case patients must be referred to an eye department.**

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### Chemical injuries

If the eyes have been injured by chemicals – for example acid burns or the even more serious alkali burns such as common lime used in whitewash, or from pesticides – the most important treatment is immediate, thorough washing with plenty of clean water, ideally after two drops of amethocaine 1% to relieve the eyelid spasm. This should be done urgently until all the chemical or particles of lime have been washed out. Then a little antibiotic ointment should be applied and the person

referred to an eye department as an **emergency**.

### Blunt injuries

First aid treatment for injuries to the eye with a blunt object is bed rest, a dark cover or shade over both eyes and aspirin. **Such cases must be urgently referred for expert help.**



## EYE INFECTIONS

### Infection of the eyelid margins (blepharitis)

This is an infection (staphylococcal) of the glands around the base of the eyelashes causing pain and swelling. The eyelids have red swollen edges and loose, often irregular lashes. The eyes are irritable, watery and often sensitive to light.

Dirty, unhealthy living conditions, poor personal hygiene, smoke and dust, ill health and seborrhoea (cradle cap) all increase the likelihood of this infection.

Treatment consists of improving general health and treating seborrhoea if this is present. The eyelids should be washed gently and massaged twice a day using a moist cotton-tipped bud (eg: a Q-Tip) to remove scales and discharge. Then tetracycline 1% or sulphacetamide 6% should be rubbed into the lash roots twice a day for a month. If available hydrocortisone may also be used for the first week. In severe cases gentian violet is a useful addition to this treatment – if a bit messy.

### Stye (hordeolum)

This is a red swollen lump on the eyelid margin, developing when an

eyelash gland becomes infected. Removing the affected lash may speed up recovery. 'Hot spooning' three or four times a day will help to speed healing. To do this, wrap a few turns of a bandage around a clean wooden spoon on which you hold some cotton wool. Dip it in hot water; squeeze out the water and apply gently to the eye. When it has cooled repeat the process five to ten times. Apply an antibiotic cream three times a day.

### Conjunctivitis

This is an infection of the conjunctiva. There are a number of different causes of conjunctivitis, but all have the same signs and symptoms...

- PAIN – from mild itching to severe pain
- DISCHARGE – may even be pussy, causing eyelids to stick together on waking
- REDNESS – of varying degree
- NO CHANGE IN VISION.

We will look at four of the main kinds of conjunctivitis...

#### ■ Conjunctivitis of the new-born (neonatal conjunctivitis)

If a baby develops conjunctivitis in the first few weeks of life, it has been infected either from the mother during birth or from the hands of

## Medical Emergencies

The following are danger signs which need urgent medical attention. Do not attempt to treat these yourself:

■ Any severe injury to the eye

■ Any condition in which the vision suddenly becomes severely affected, such as acute glaucoma where the pupil is enlarged and the eye is very hard, or acute iritis where the pupil is small and irregular.

birth attendants. Such infections **must be treated immediately** or the baby may lose its sight. The most usual cause is gonorrhoea from the mother – conjunctivitis develops within a few days.

Treatment is penicillin G given by mouth and antibiotic eye drops. Drops are put into both eyes every five minutes until the discharge stops. This may take an hour or two. Drops are then given at decreasing intervals for about two days.

The best prevention is to wash the eyelids and face of all new-born babies before the eyes are opened. Place an antibiotic ointment in each eye. The use of 1% silver nitrate drops is effective but toxic to the conjunctiva and is no longer used.

## ■ Bacterial conjunctivitis (pink eye)

This infection can affect all ages. It begins suddenly in one or both eyes, causing redness, pain and irritation. There is a lot of discharge and lids often stick together after sleep.

This disease is very contagious and easily spreads from one person to another. Do not share towels and always wash after any contact with an infected person. Keep your own face clean because eye-seeking flies help to spread the disease.



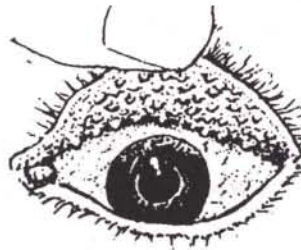
Treatment is to wash the eyes with clean water and a cloth as often as necessary. Apply antibiotic ointment – chloramphenicol eye ointment – four times a day.

## ■ Trachoma

This is a chronic kind of infection which involves both the conjunctiva and the cornea. It can affect all ages, but particularly young children. It begins with red, watery eyes as with pink eye. A single infection heals without treatment. However, re-infection is very common. After a month or more, small pinkish grey

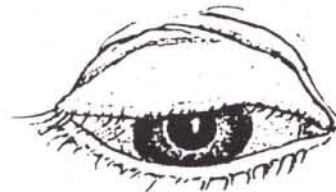
## Ideas for a simple 'Eye Tray'...

- **Amethocaine 1% eye drops** (anaesthetic drops)
- **Sterile fluorescein strips** – to show up damage on the eye surface
- **Absorbent tissues** – for cleaning
- **Tetracycline eye ointment** – antibiotic
- **Epilation forceps** – for removing ingrowing eyelashes
- **Cotton tips** – for cleaning and removing foreign bodies
- **Sterile large needles** – for removing small foreign bodies on the cornea
- **Eye pads, adhesive tape and bandages**
- **Scissors**
- **Magnifying glass**
- **Small focusing torch**



lumps, known as follicles, form in the inflamed conjunctiva of the upper and lower eyelids. The white of the eye (conjunctiva) becomes mildly inflamed. The cornea also becomes scarred and may appear greyish on the top edge due to many tiny new blood vessels (pannus). Eyesight will become affected by pannus.

The end result of severe inflammation in trachoma is a variable amount of scarring of both conjunctiva and cornea, leading to thickened and inflamed lids (entropion) so that vision is progressively reduced.



Trachoma only causes blindness in communities where there is frequent re-infection with chlamydia and other bacteria. Such communities are usually poor, overcrowded, with inadequate

sanitation and water supply, poor personal hygiene and many flies.

Individuals can be treated with antibiotics – sulphonamide (eg: triple sulpha) by mouth for three weeks or tetracycline 1% eye ointment (three or four times daily) placed into the eye for six weeks. The acute signs take some months to disappear, but the scarring remains for life.

The real problem is to prevent re-infection and to reduce the overall level of infection within the community. This can be done by the widespread use of tetracycline 1% eye



ointment especially, among all school children and pre-school children over a long period of, for example, six months. One good method is to give tetracycline 1% twice daily to all children for one week every month, continued over six months. Together with this, an important and perhaps more practical measure is the daily face washing of all children. So too is the provision of clean water supplies, fly control measures and sanitation. Family planning programmes may help to reduce the population density of small children living together who continually re-infect each other with the disease.

#### ■ Acute viral conjunctivitis

This may affect all ages. It infects both eyes though it may begin with just one. There is soreness and swelling around the eyes, and some watery discharge. The pain may be mild or severe and, because the cornea is frequently involved, there may be extreme sensitivity to light. Often this kind of conjunctivitis is associated with fever and sore throat.



FROM THE EDITOR

This edition of *Footsteps* takes the topic of vision. The gift of sight is a very precious one – a gift that many in this world lose through the lack of appropriate eyecare. The study of ophthalmology is a very detailed and specialised field. But simple steps to improve eye-care could be taken by many health centres, to help protect the sight of many.

The main article by Dr Jock Anderson gives helpful guidelines for simple eye care. The eye work in Biombo gives a useful insight for health centres who would like to devote more time to eye work. We also consider how we look at the world around us. What affects our vision? Do we see the concerns in our communities as God wants us to? Or is our vision clouded? The articles by CB Samuel and the Development Wheel by Torrey Olsen help us to look at our own role and vision more clearly.

### The size of the pupils...



A difference in the size of the pupils may come from brain damage, stroke, injury to the eye, glaucoma or iritis. (Some difference is normal in a few people.)

There is no specific treatment. Dark glasses may help. Chloramphenicol eye ointment is not of much value.

*Dr Anderson has worked for many years as an ophthalmologist in Pakistan, Afghanistan, India and Africa, and was until recently senior lecturer in the Department of Preventive Ophthalmology at the Institute of Ophthalmology in London.*

*This nurse received training as a community eye health educator and now runs workshops for village health workers.*



Photo: Sight Savers

The continued flow of letters about *Footsteps* brings great encouragement. In this issue we are asking for your help in improving our vision for *Footsteps*! This issue contains a **fact-finding survey** which we would like you to fill in and return to us. We want to know exactly what you think about *Footsteps*, how it helps you, what you would like to see changed or improved. We also want to learn a bit more about the kind of people who read *Footsteps*. Please help us – ideally by completing the form now as you read about the survey!! It will only take a little of your time and will be very valuable for us.

We will use the returned forms to update our mailing list – if you do not return the form, we will assume that you do not read your copy and may remove your name from the mailing list! A future issue will bring details of the results of the survey. We look forward to hearing from all of you!!

*Isabel Carter*



injected with dirty needles. In the years ahead, I believe many more women and children will die of AIDS than would ever have died of tetanus.

How do we get this message over to the Ministry of Health?

The second major problem is that the educated men that were brought from Bamako as bureaucrats, believe that AIDS is a big lie made up in the West to change their sex lives.

*Don Mansfield*  
William Carey International University  
USA

### Reading into action!

Footsteps really cares and means it. I am happy to inform you that our Karughe Farmers Group receives copies. We read about the uses of trees and share this knowledge. I formed an Environment and Wildlife Protection group with local people and it is trying to pave its way to recognition.

Our group learnt how oral rehydration can be done using cereals and now we are practising this. Indeed it is proving successful. May you be blessed for the work you are doing.

*Joshua Bwambale*  
Karughe Farmers Group  
PO Box 507, Bwera-Kasese, Uganda

### Livestock

We enjoy receiving Footsteps and find something of interest each time – and pass it along to others in the field. The

drawings are very good to attract 'readers' who don't read English but who ask questions from the drawings.

Books are a quick way to get knowledge and information, but wisdom often comes just from listening to the experience of others – and that experience tends to be with grey hair!! From our grey hairs, here are a few tips!

Goats are a little like naughty children – they need watching. In many rural situations good work is often destroyed by wandering goats and other livestock. There is no doubt that as common lands and grazing spaces decrease with increased pressure on land, the need for stall feeding of animals becomes more and more important.

Stall feeding needs to be balanced with giving the animals concerned a chance regularly to 'get out and walk around' – under supervision, of course. One easy way to manage this is to let the animals out in the evening before sunset. They will then be willing to come back inside. Watch what they do when taken out of their stall and you will soon see why it is important not to keep them constantly penned up. They scratch themselves on brick walls; they will often search for weeds to improve their nutrition; they like to lie on the ground, often in dust, and roll around – this helps to keep lice down.

In making your own concentrate for goats, quite a few 'additives' can be included. Perhaps one of the most important things is to allow them access to salt – common rock salt is best. Keep a separate pot for mixing, and after each feeding wash the pot out and fill with water. Keep an old iron rod in the pot – any scrap iron will do. Also, if you have it, a piece of copper wire. Traces of iron and copper will then be available in the water for the goats. (It may be best to leave out the copper for breeding animals).

Parasites are a difficult problem for the really poor smallholder as they rarely have the cash for treating goats with commercial drugs – even if available. Ask what local people use to get rid of hair lice in their children



*Alley cropping, showing one line of trees cut back and another before cutting. A crop of young maize is growing in the alleys. Improving soil fertility is a wise 'pension plan' for farmers.*



– the same recipe may be useful. 'Hand picking' is sometimes the only solution.

For internal parasites we encourage feeding with fresh neem leaves at least once a week. The seed pods of the leucaena tree are also effective against some internal parasites.

An interesting little book is *Goat Health Handbook*, available from...  
Winrock International Institution  
for Agricultural Development  
Petit Jean Mountain  
Morrilton  
Arkansas 72110  
USA.

*Eliazar T Rose*  
*New Hope Rural Leprosy Trust*  
*Orissa, India*

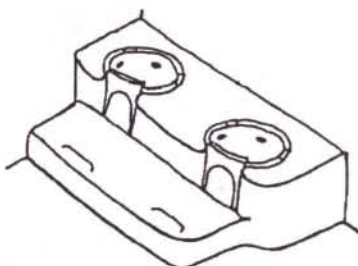
## Thanks

I wish to write and acknowledge my appreciation for the assistance given to me through *Footsteps*. The publications are of great practical value due to their simplicity and adaptability. I am very grateful to you.

*Nyaudoh Ndaeyo*  
*Calabar, Nigeria*

## Stoves project

I thought you might be interested to hear about the effect of one of your articles in *Footsteps No 5* on the GTZ/SEP Maendeleo Stoves Project. I was unfamiliar with the project before, but wrote to them and as a result we have a good working relationship. Now the Maendeleo stoves are one of the most popular parts of our extension work through the independent churches in W Kenya. We have trained a number of church women in installing the



stoves. Teaching about the stoves follows on naturally from teaching about tree planting and study of biblical principles. We encourage the women to charge 20 shillings for installing each stove. So it is self-financing extension.

This work has helped various Government staff to see the role of the churches as a very positive one in extension and training.

We have already found interest in the stoves from other countries and we may be able to train churches from elsewhere, introducing them to the technology and ideas for their own people to benefit.

*Roger Sharland*  
*OAIC, Box 21736, Nairobi, Kenya*

## Support your local tree

In recent visits to Senegal and Northern Nigeria, I have been saddened by the very dramatic worsening of the drought situation and the drying up of water supplies. We continue to stress the urgent need for tree planting programmes and to encourage those working in church tree nursery projects.

In such dry conditions, tree seedlings need all the help they can to survive. We have found that using a small quantity of liquid neem (see *Footsteps No 6* page 12) helps to protect against damage by termites.

*Bob Mann*  
*Methodist Relief and Development Fund*  
*25 Marylebone Road*  
*London, NW1 5JR, UK*

## Pension Plans for farmers!

I would like to tell you about a farmer I know, because his story may encourage others.

He has farmed in Chitawan for 30 years using traditional systems. All his family has depended on the family farm and worked from morning till evening to make a livelihood. But yields steadily became lower. Soil erosion and shortages of fuel and fodder became more and more of a problem. Family life was full of arguments and fear for the future.

The farmer had to overcome the desperate situation of his family. Should he look for other work in the towns? He discussed his problems with others. With their help he drew up an appropriate farm management plan in his mind. He gave more emphasis to improving the fertility of the soil and to planting trees for the future as a pension for him and an investment for his children. Now he uses alley cropping for all his cereal crops, practises crop rotation and ploughs crop residues back into the soil. He keeps animals in stalls to collect more manure and makes compost. On half of his land he is planting trees, particularly *Dalbergia sisoo* (Sisoo).

The family still has to work very hard. However the farmer now has confidence for the future and his 'pension' to look forward to!

*Padam Bhandari*  
*Community Health Project*  
*United Mission to Nepal*  
*Tansen, Palpa, Nepal*

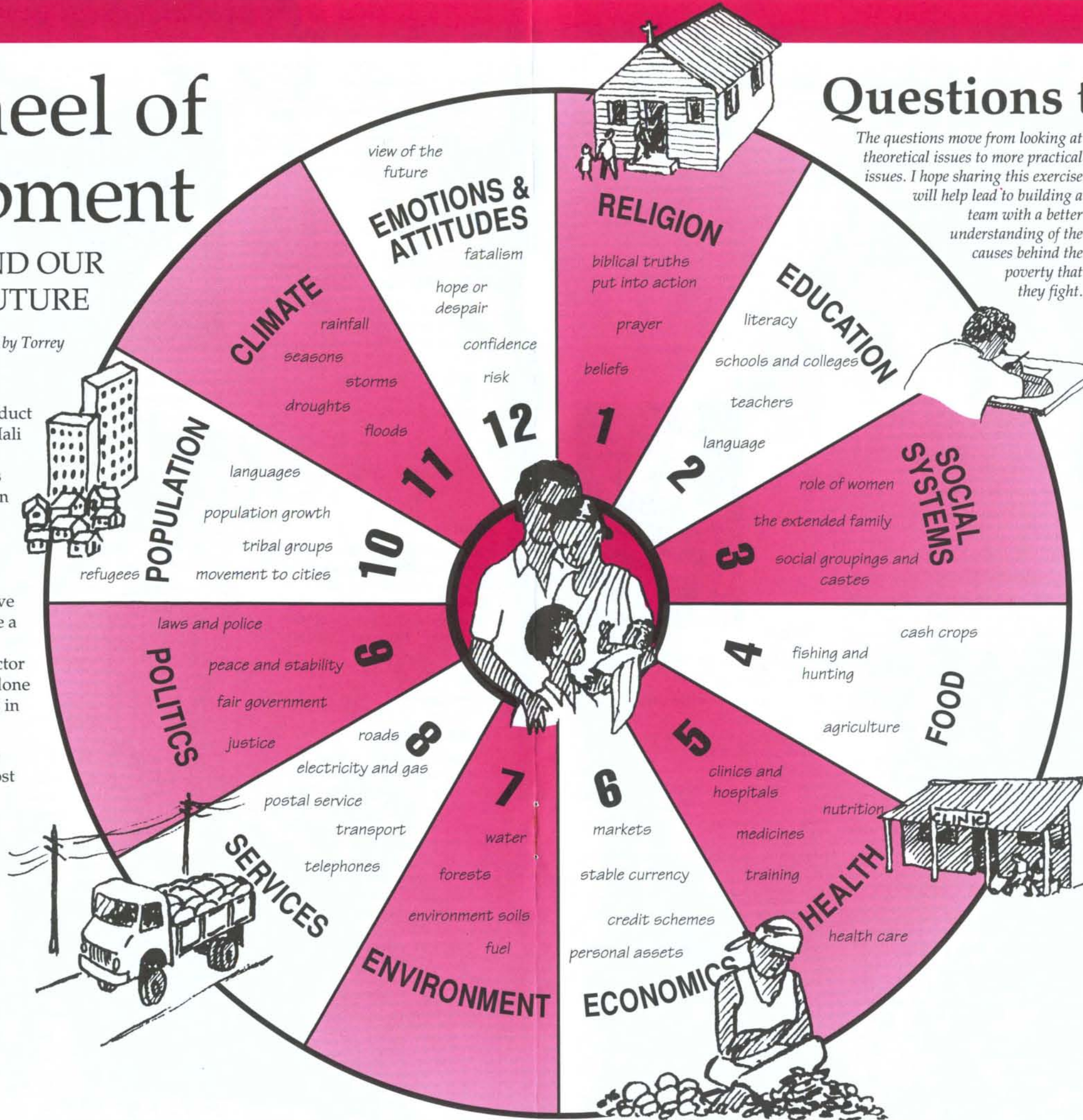
# The Wheel of Development

## DEVELOPMENT AND OUR VISION FOR THE FUTURE

Adapted with thanks from an article written by Torrey Olsen, World Vision, Gao, Eastern Mali.

We have found it very helpful to conduct training among our staff in eastern Mali using the 'Wheel of Development' shown here. Before we introduce this diagram, we like to begin a discussion by asking the question 'Why do you think people are poor?' All kinds of reasons and excuses are usually discussed. Then we introduce the diagram and look at each of the twelve sections of the wheel in turn. We give a strong case for each of the twelve sections being the most important factor for development. This can easily be done – often with the help of recent stories in the papers or radio.

Then we ask the group 'Which of the twelve factors do **you** think is the most important?' Now all the previous excuses have gone. People feel a little overwhelmed. A far better discussion begins. This discussion usually takes about an hour and the result is usually a new understanding about the complexity of the causes of poverty. After this introductory session, the group may work through the questions opposite in a number of meetings.



## Questions to discuss...

The questions move from looking at theoretical issues to more practical issues. I hope sharing this exercise will help lead to building a team with a better understanding of the causes behind the poverty that they fight.

1. Which of these twelve sections is the most important? Why? Which is the next important? Why?
2. Are any other important factors missing from this wheel? What are they?
3. Could you make a case for any of these other factors being the most important?
4. Out of these twelve sections is there one in which changes are easier to make? Which one and why?
5. Which section would be the most difficult to make changes in? Why?
6. Do these twelve sections fall into more general categories? If so, what are they?
7. In which of these sections must we usually begin our efforts? Why?
8. What is the difference between relief and development?
9. How can you judge if a relief project is successful or not?
10. How can you judge if a development project is successful or not?
11. What are the real goals of development?
12. What are the positive things about each of these twelve sections here in our situation? What are the negative things?
13. What things are we doing to make changes in each of these sections?
14. What things could we do to make changes in each of these sections?
15. What qualities should a development worker have?
16. What skills do you have to share with the team?
17. What skills would you like to learn more about in order to do your job better?
18. How can we help one another become better at our work?
19. What are our greatest needs right now – as a team?
20. How likely is this project to be successful in improving development here in the next year? Three years? Five years?



## Hanyane – A Village Struggles for Eye Health

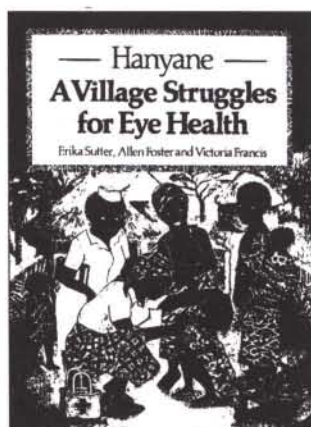
by Dr Erika Sutter, Dr Allen Foster and Ms Victoria Francis  
263 pages

The book is designed to help those involved in health care and in particular, eye nurses, ophthalmic assistants and community health workers.

The book is divided into three parts: Part One is based on the true story of a group of villagers who were encouraged to improve their own eye health. In each chapter problems are faced, questions are asked and issues discussed. Part Two is written for health workers. It explains how an eye patient should be examined, how to make a diagnosis and how to manage common eye problems. There is a section on important health messages to prevent eye diseases. Part Three is a set of lecture notes for ophthalmic assistants and nurses, giving more detailed information on the causes of eye disorders, and the treatment of eye diseases.

The book provides an excellent introduction to the whole subject of eye health. It costs £3.50 including postage and can be ordered from:

Dr A Foster  
Preventive Ophthalmology  
Institute of Ophthalmology  
Bath Street  
London  
EC1V 9EL  
UK.



useful guide to anyone involved in establishing an eye care programme. The author has many years of field experience and emphasises the importance of encouraging community participation. There is mention of traditional eye medicines from Zimbabwe. The manual is available free of charge for those involved in health care in developing countries (\$30 for those in developed countries). Order from:  
*The Director  
Norwegian Church Aid  
P O Box 52802  
Nairobi, Kenya.*

### Teaching colour slide sets

Five teaching slide sets have been prepared at the International Centre for Eye Health in London. Each teaching pack consists of 24 colour slides with an accompanying booklet. The sets available are:

#### Examination of the Eyes

#### The Eye in Primary Health Care Cataract

#### Childhood Blindness

#### Onchocerciasis (River Blindness)

Sets on Glaucoma and Trachoma will shortly be available. Each set costs £15 – postage is free. To order write to:  
*Dr Murray McGavin  
International Centre for Eye Health  
Bath Street  
London  
EC1V 9EL  
UK.*

Cheques or money orders should be made payable to *The Institute of Ophthalmology*.

### Setting Up Community Health Programmes

by Dr Ted Lankester  
ISBN 0 333 57423 0 paperback

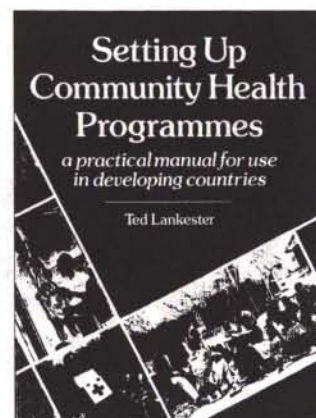
Many of you will have enjoyed Ted's contributions in *Footsteps*. He is an active member of the *Footsteps* committee with many years' experience in India in particular. This book brings together a great deal of experience and sound advice. The leading article in *Footsteps No 12* was based on material from one of the chapters.

The book contains 21 chapters covering the whole spectrum of

subjects which may be of relevance in establishing community health programmes: working with the community; raising health awareness; surveys; community health workers; setting up clinics; assessing malnutrition; guidance for establishing immunisation programmes; maternity programmes and family planning programmes; public health; personnel; management of health work; co-operation with Government; aid and funding agencies and hospitals.

We thoroughly recommend this book to anyone involved in community health care. The book has 384 pages and costs £7.80 including postage. Order from:

TALC  
PO Box 49  
St Albans  
Herts  
AL1 4AX  
UK.



### Where There Is No Doctor (new edition)

With 2 million copies in print in over 50 languages, *Where There Is No Doctor* is perhaps the most widely used health care manual in developing countries today. This classic guide has been revised and expanded. Medical advice has been updated and there is much new information on subjects such as AIDS, drug addiction, dangerous pesticides, VIP latrines and many others.

The new issue has 512 pages. At present it is only available in English, though other translations will soon follow. The cost for those working in developing countries is \$7.00 each including postage. (Cost in developed countries is \$14.00 including postage or \$13.00 in USA.) Bulk orders are cheaper. Order from:

*The Hesperian Foundation  
PO Box 1692  
Palo Alto  
CA 94302, USA.*

### Eye Care Programmes in Developing Countries

by Harjinder S Chana

This 179 page manual is an important resource book presenting the principles, planning, setting up and evaluation of eye care programmes in developing countries. It would be a

# A Biblical Vision?



## WHAT WOULD YOU DO?

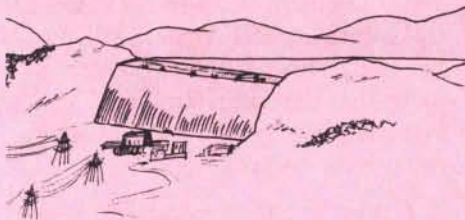
by CB Samuel

### Case Study One

A huge dam is planned which will provide water for a large city. Water reserves are already low and the water is desperately needed. The people in the hills and valleys behind the dam will have to be moved away because their land will be flooded. The Government plans to rehabilitate them nearer the city and will provide land and compensation. However, the people do not want to leave their traditional lands and village groups for an unknown future and uncertain land. Apparently they have no choice.

You have been working alongside the people, encouraging rural development. You have built up a good relationship with the villagers. What should you do?

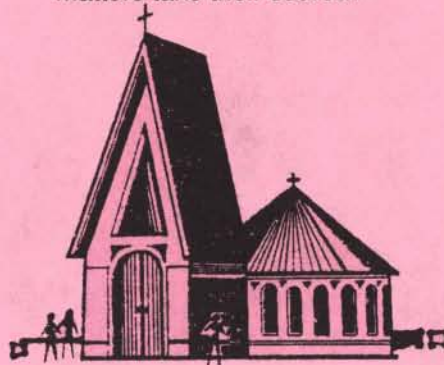
- A** Go along with the Government proposals and work with the plans for the rehabilitation scheme? You may lose the support of the villagers if you do this.
- B** Support the villagers and campaign with them to change the plans for the dam to prevent them from losing land which has belonged to them for many generations?



### Case Study Two

You are a respected member of a large city church. Land owned by the church has recently been sold. There are reports in the press that the Bishop has been involved in corruption over the land sale. Money has gone missing and it seems there have been various dubious deals. You also suspect that the press are right in their allegations. What action should you take? The church is very badly affected and some action is needed.

- A** Come out in public with the leaders of the church to denounce the deals which the Bishop has made and encourage legal action to be taken?
- B** Use the structures of the church to deal with the problem and take any discipline necessary – including the removal of the Bishop if this seems right?
- C** Call the church to prayer and let matters take their course?



When we deal with our neighbours, families and the world around us, what helps us to decide the right things to do and say? Here are some imaginary situations which all of us might face. Read through these case studies – if possible talk about them and discuss them in groups – and decide what action you would take.

### Case Study Three

Mousa is a non-Christian friend, a married man with a young family, and a successful business executive. You are a respected member of a church with an important post in the church. Mousa comes to you one day asking for your advice as a friend. He says that he has recently got to know a beautiful young woman in his office and finds himself very tempted to begin a relationship with her. What advice do you give to him?



Take time to think through how you would deal with each of these issues. If you have done this in groups, talk over the decisions you have reached and how you have reached them.

- Which of the case studies was the easiest to deal with?
- Which was the hardest to come to a definite decision about – maybe you still cannot decide?

Try and talk about these issues before you turn the page and read further about the case studies.

## A Biblical Vision?

### THINKING IT THROUGH

Unfortunately I cannot be there to listen to all that you have decided – but I have listened to others as they think about these case studies.

#### The girl friend

Most of us find the third case study a very easy one to deal with. Would our advice to Mousa be any different if we were not Christians? I don't think so. Nearly all of us would advise him to resist temptation and look after the family he already has – either he or the girl should move to work elsewhere so that the temptation is removed.

#### The bishop

The situation with the Bishop is not quite so easy, but as Christians, we do have definite guidelines within the New Testament. We are urged not to take differences between Christians to court, but to settle them within the church and to use discipline if necessary. Opinions may differ on this matter, but the differing groups still use the Bible as the framework for their views.

#### The dam

However, I am sure that most of you found the first case study the most difficult to decide about. Why is this?

Why is it that we can be so certain about what is right or wrong about our own or someone else's behaviour? As Christians, we usually know where to look in the Bible for guidance about how we and others should behave. But when it comes to social issues such as land ownership or political decisions, we are often very confused about what we should do. How can we be sure of exactly what we should do? Where do we look in the Bible for answers?

This confusion means that churches tend to concentrate too much on individual behaviour – on being right with God on a personal level. Of course, there is nothing wrong with this. But I do believe that, as Christians, God also expects us to be sure in our views on the world around us. We can all be sure of what we would say to Mousa – but can we all be as sure of what God is

saying about land ownership, care of the environment or injustice? The answer is often – no. Sometimes we think that the Bible has contradicting advice. Does God have an opinion on such matters? Is there a Christian view on land ownership? (Look at the story of Naboth – I Kings Chapter 21.) Does the Church have a framework within which it can make a decision?

#### Framework of belief

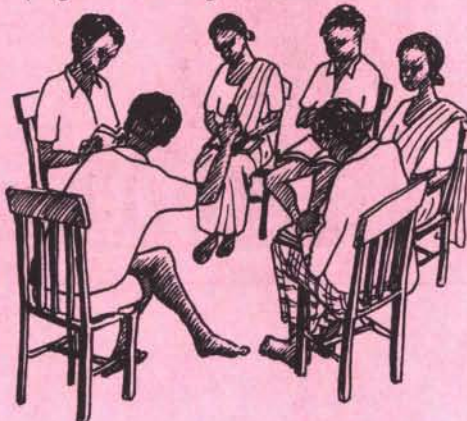
In my experience churches tend to be...

- strong on personal issues
- weak on local issues
- hopeless on national and international issues.

However, in the Old Testament God had lots of opinions on how people should live. Does he have less of an opinion now? I certainly don't believe so. The church needs to come to the place where we have an immediate and biblical opinion on social and national issues. How much are my views – my framework – influenced by my culture, church or community? How can we begin to develop a biblical framework for our action and for those of our churches?

Behind the moral teaching of the Old Testament there is a basic framework of belief. We need to study and understand the Old Testament to realise how much is of relevance and help to us today.

*CB Samuel is General Director of EFICOR, based in Delhi, India. He is a teacher of great authority concerning Christian commitment to the poor, with much experience in relief and development programmes throughout India.*



## AIDS UPDATE

A letter recently received from Senggo Christian Hospital in Irian Jaya, raised various questions about the sterilisation of equipment to kill the HIV virus. The letter ends '...in the developing world, it isn't much help to know that glutaraldehyde is best, when it is too expensive and hard to get.'

Here are a number of helpful points from Dr Victoria Wells of ECHO and Dr Monica Cheesbrough, which may be of use to those of you involved with sterilising equipment in small clinics where supplies of suitable disinfectant may be erratic or difficult to obtain.

■ These chemicals will kill the HIV virus after soaking for 30 minutes.

- Glutaraldehyde 2%
- Rubbing alcohol 70%
- Polyvidone iodine 2%
- Surgical spirit 70%
- Chlorine solution 0.5%
- Hydrogen peroxide 6%

Lysol, Savlon and Dettol will **not** kill the HIV virus.

■ Follow the recommended soaking time in disinfectant exactly. Do not remove equipment too soon. A recent problem is that many people are leaving instruments and needles too long – sometime for several hours – to make sure the HIV virus is killed. However, this has the effect of damaging the metal surface of instruments and needles – causing rapid wear and rusting.

■ If no suitable chemical is available, rinse and then boil all instruments –

## BIBLE STUDY

### *The land as a gift from God*

by Revd Dr Chris Wright



IN THE OLD TESTAMENT, Israel had land to live in because God, quite simply, had given it to them. This gift of land made Israel realise how dependent they were on God and how dependable God was in providing for their needs – even when they were unfaithful to him. The gift of land proved the relationship between God and Israel. Individuals had the right to their own individual piece of land – the land was intended to be equally shared out.

The story of Naboth has much to teach us about land and inheritance.

**Read I Kings Chapter 21:1-3.** King Ahab's suggestion to Naboth that he should purchase or exchange other land for Naboth's vineyard may seem quite reasonable to us. How did Naboth react? Naboth believed that the land was not his to give, sell or exchange. He held it on trust from the Lord for the benefit of his family.

**Read the rest of I Kings Chapter 21.** In verses 11–16 we learn that the only way Ahab could take possession of

Naboth's vineyard was by falsely convicting Naboth of blasphemy. This offence meant that he forfeited his right to belong to God's people. He was stoned and his land confiscated. This incident shows how closely people's relationship to God was linked with their right to share in God's blessing of land.

Naboth's fate was typical of what happened to large numbers of ordinary people as royalty and wealthy nobles increasingly ignored the traditional Israelite system of family land tenure. More and more people were deprived of their ancestral land and forced to work as poor labourers on land that was once theirs, but was now in the hands of the wealthy, powerful few.

The prophets came to the defence of the poor, exposing the corruption and exploitation of the rich. The prophet Elijah brought a blunt message to King Ahab: 'God is angry at your crime and will punish you in the same manner.'

Do you or does your church speak out with the same authority when injustice is seen? Why was Elijah so confident in what he said to King Ahab? What can we learn from this story?



in a covered pan – at a rolling boil for at least 20 minutes. Ideally, use an autoclave (see below). Remove instruments with sterile forceps and keep in a covered sterile tray.

■ If none of these recommended chemicals are available, bleach will kill the HIV virus. However, bleach is supplied in a variety of concentrations and it is vital to know the strength of the bleach you are using. Also, bleach rapidly becomes ineffective in heat and strong light. For sterilising instruments and needles a 0.5% solution (100,000 ppm chlorine) is needed.

■ ECHO can supply portable autoclaves for £200 to £300 anywhere in the world. They also supply a powder disinfectant – VIRKON – related to glutaraldehyde. 5kg costs



*Which chemicals are effective in killing the HIV virus?*

about £35 to post. Recommended dilution is 50 gm per 5 litres water – so this is a huge quantity. Ask for more information from...

ECHO, Ullswater Crescent, Coulsdon, Surrey, CR5 2HR, UK.

■ A new chemical will soon become widely available throughout the world – NaDCC. This is very stable in heat and sunlight, easy to use in tablet form and quickly kills the HIV virus. Look out for this in your own country.



## A SOCIAL FORESTRY PROGRAMME

by Nick Brown

IN AN EARLIER ISSUE of *Footsteps* (No 5, December 1990) Dr Julian Evans introduced the idea of community involvement in forestry. Most agencies and governments involved in forestry in poorer countries now recognise that forestry programmes can only really be successful in the long term if they involve the community. They must take into account the needs and hopes of the local people who depend for their survival on the land around them. If the local community is ignored, they will never feel the forest is 'theirs'. Any attempts to replant forests or to manage them in the long term are likely to fail in the end.

It is easy to say that the needs and feelings of the local people must be considered. However, it is not always easy to understand these needs and to identify the neediest people. It often happens that while some people in a community think one thing – others may disagree. A course of action that may benefit one farmer may be a disaster for another. Sometimes it is impossible to design a project where the benefits are shared out equally. To illustrate these problems, I would like to look at a social forestry programme in Ratnapura, Sri Lanka.

### The first attempt

Deforestation (removal of forests) is a serious problem in Sri Lanka,

particularly in the hilly areas where heavy rains can erode precious topsoil at frightening speed once the forest is cut down. Deforestation has been caused mainly by villagers cutting and burning government-owned forest to make way for annual crops such as cowpea and red onions, or tea and cinnamon in the wetter areas. The first attempts to reforest areas in Ratnapura district did not consider the views or needs of the villagers – they were simply barred from the land. Forests were replanted by the Government Forest Department. The result was that many plantations failed after a few years due to villagers burning the trees and replanting food crops.

### The second attempt

After a while, a 'village reforestation' programme was started, funded by the Dutch Government. Before planting, a series of village meetings was held. The problems of soil erosion and water shortages were discussed with the villagers. The villagers' views and concerns were listened to. Finally, a scheme was agreed together. The villagers were paid to grow trees and plant them on behalf of the Forest Programme. This was more successful than earlier schemes, but still suffered from some fire damage and lack of interest from the villagers in maintaining the trees after planting.

It became apparent that there were a number of reasons for this. Although the new forests were planted by local people, they were still not allowed to collect firewood, food or other products from the forest. **They still did not feel the forest was theirs.**

*(heading photo) Women now play an important role in the social forestry programme in Ratnapura.*

## The third attempt

How could this difficulty be overcome? It was agreed that some land would be leased to farmers to plant crops between the trees (agroforestry). Soil erosion would be reduced as the farmers would build terraces for the crops. In theory this was a good system. However, in practice it was almost impossible to ensure that the leases were distributed fairly. When a village meeting was called, the people who spoke up were the more powerful men in the village – they usually owned good land and, perhaps, a shop. The poor farmers, who had recently migrated to the village and who owned no land at all, often did not even attend the meetings. However, they were often responsible for most of the deforestation on steeply sloping land. The good land was already owned by older residents of the village.

## Other ideas

Agroforestry could not be recommended on the steeper land (with slopes over 40%) because of the risk of soil erosion. This land should be replanted just as forest. Maybe this land could be leased to the village community as a whole so that the whole village could benefit? But the sense of community in villages is not strong enough for this to work. Everyone would take too much timber for themselves and the forest would quickly be destroyed.

*(below) Deforestation – a huge problem, the world over.*



Another idea was to lease small parts of this forest land to farmers as well, but there were similar problems in selecting farmers fairly.

Another concern was that women had very little part in the village discussions. They rarely spoke and never came forward to apply for leases, although it is common for Sri Lankan women to run their own enterprises. This meant, for example, that the species of trees chosen by villagers tended to be trees that were good for building – the traditional job of men – and not those which provided fruit or plentiful firewood – the traditional work of women. Work that received payment, such as tree nursery care, was mostly given to men.

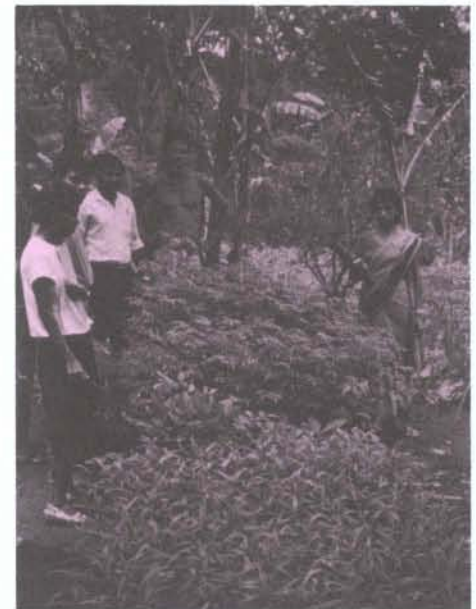
It was agreed that 50% of the tree nursery work should be given to women. Also, because there was a great need for training in tree nursery and planting techniques, two villagers from every village joining the scheme would receive training. One of these would always be a woman.

## The programme today

The social forestry programme has now been running for seven years. It has had a good success rate in replanting steep forest slopes. However, much re-thinking of methods has been necessary, as well as much time in listening to the village people. In the end, success can only be measured in the long term – will forests still remain in future years?

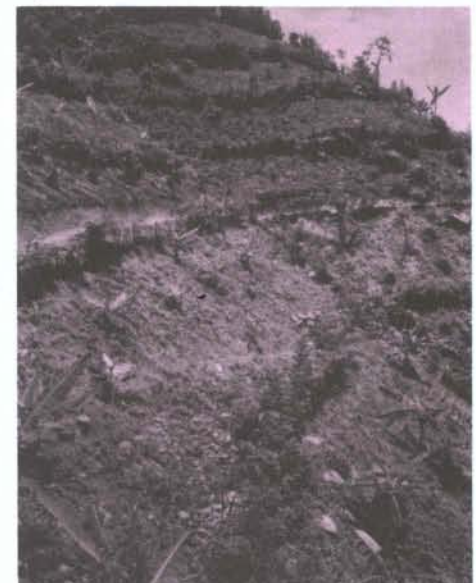
The most important issue for anyone involved in forestry programmes in other countries is to understand that each society, culture and village is different. No one technique will work everywhere, and it involves much time and difficult work in deciding which is the most appropriate method. In the end, we are most likely to be successful if we think of deforestation as a social problem not a physical one. Hence the name: 'social forestry'!

*Nick Brown is a forester who spent two years as a VSO, working on the social forestry programme at Ratnapura, Sri Lanka.*



*(above) Select trees which are liked and used by the community.*

*(below) Agroforestry – crops and trees growing together.*



## Eye care in Biombo

by Audrey Fernandez

THE BUSY CLINIC at Biombo in Guinea Bissau, West Africa, acts as a centre for primary health care work in the surrounding areas. A group of eye specialists from Christoffel-Blindenmission (CBM) visited Biombo in January this year. We were greatly encouraged by their work and were amazed by the number of people in need. Dr Adrian Hopkins and his team made us aware of how simple hygiene, nutrition and early treatment of eye conditions can prevent blindness which may be caused by Vitamin A deficiency, trachoma, glaucoma and onchocerciasis.

This brief visit was enough to encourage us into action! We have now started doing eye care at the clinic. Dr Hopkins trained two of our workers to do the 'entropion' operation to correct the problem resulting from trachoma, when in-growing eye lashes scratch the cornea, leading to blindness (see page 3). Other members of our team were taught how to use the eye-charts for sight assessment and to promote good hygiene.

Albertina, who will lead this programme, was given extra teaching on diagnosis and treatment of various problems. To gain further experience,



Dr Fadia teaching Romão how to infiltrate with local anaesthetic.

she works with a Guinean ophthalmologist for two weeks every three months.

Christoffel-Blindenmission are hoping to send a nurse out for a two year period to work alongside Albertina. This will help her to set up a Community Eye Programme, while carrying on with entropion operations and treatments in the clinic. Complicated cases will be sent to the city hospital.

To become really effective, an eye programme needs to become a separate programme, with its own team and supplies. Treating simple infections in a general clinic is a start, but will not meet the needs of many people who need more specialised help.

Anyone starting up such a programme will need to decide what their priorities are. Do they have enough staff, medicines and equipment to start up a full eye programme – or should they

ADJEDJI, A FIVE YEAR OLD GIRL was brought to us in an advanced stage of measles; both eyes were badly affected, she was badly malnourished and had severe pneumonia. With prayer, food, antibiotics, Vitamin A and loving care, she recovered. Once she was able to open her eyes, we discovered that one eye was permanently damaged, but she fortunately has sight in the other eye. Other children are not so fortunate. By the time they are taken to various witch doctors, their eyes are damaged beyond repair, and though we may sometimes bring them through the measles, they are totally blind.

■ WHO recommend giving Vitamin A capsules to all children as soon as measles is diagnosed to reduce the risk of death and blindness.

concentrate on health education and treatment for simple eye infections?

We have found it very helpful having CBM's support in training us and providing us with equipment, drugs and advice. Their address, if anyone is interested is:

Christoffel-Blindenmission  
Nibelungenstrasse 124  
D-6140 Bensheim 4  
Germany.

A THIRTEEN YEAR OLD GIRL came with severe pain and redness in one eye. Trachoma had resulted in in-growing eye-lashes. She arrived before any permanent damage was done to the eye. An entropion operation was performed. She was given antibiotic eye medicine for a week, then the sutures were removed and she went home free of pain with sight in both eyes. In the past she would have been left untreated and would have eventually lost the sight in that eye after a great deal of pain.



Applying eyedrops before an entropion operation.

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