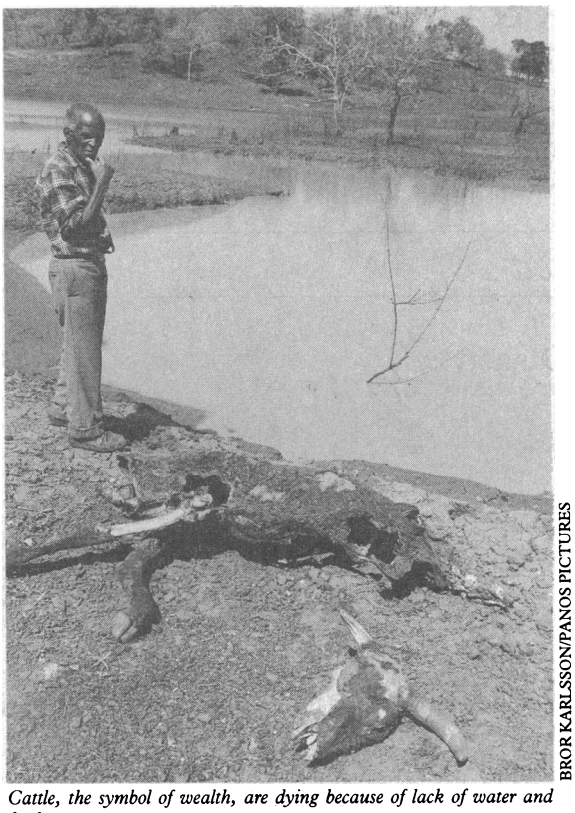

BROR KARLSSON/PANOS PICTURES

Cattle, the symbol of wealth, are dying because of lack of water and food

transport and bureaucracy are becoming critical. The local response, however, has been impressive; people are trying to help themselves—distributing food from those least affected to those most affected.

An important consideration in famine relief is the type of food given. The maize grown here is nearly all white maize but the only maize available for distribution is yellow, and there are strong traditional beliefs that yellow maize is inedible and even poisonous. Corn soy milk, a processed high protein cereal mixture, is very nutritious but alien in taste and method of preparation. Little reassurance is needed, however, when people are starving.

Clean water is vital for health and hygiene, and running clinics and hospitals without it is a depressing task. Tankers are being used to distribute water throughout the region, but there are too few to cope with the task. Groups of people cluster on roadsides with plastic containers waiting, sometimes for several days, for water to arrive. Static water tanks and drilling boreholes are solutions but cost money that isn't available. There is also the long term threat of lowering the water table with too many boreholes.

From a medical point of view, the most obvious effect has been the increased workload and overcrowding in the hospital. Information is important and anthropometric surveys of young children, measuring weight for height or mid-upper arm circumference, are used to monitor malnutrition. Surveys are carried out regularly in the refugee camps and rural outreach clinics. Achieving good immunisation rates, especially for measles, will reduce child mortality, as will distributing vitamin A supplements. Rural health motivators, based in the communities, can help educate about hygiene and public health.

May to August is the winter here, with temperatures dropping to near freezing and strong winds. This environmental stress increases food requirements, and providing a blanket can reduce food needs by 1-2 kg a week for an adult.

Preventing future crises

There is no way to prevent drought occurring in future, and the danger of long term famine from consecutive years of drought is very real, but there are ways to prepare for it. Drought resistant crops such as sorghum and millet could be used to replace the country's staple diet, although even these failed to grow this year. Water conservation is important, as is planning ahead by installing water tanks at clinics and villages.

It is the overriding responsibility of each government to feed its people, and stockpiling food is essential. Last year Zimbabwe produced excess maize but donated some to Ethiopia and sold the rest, mostly to Mozambique. So when drought struck this year they had no reserves to call on. The root of the problem, however, lies in the pressure on developing countries by the International Monetary Fund and World Bank to earn foreign currency to pay the interest on national debt. Storing maize surpluses is expensive, whereas growing tobacco earns the vital foreign currency needed to meet the next instalment. The solution is not endless appeals for international aid, with emotive pictures of starving children on Western television when it is too late to prevent much suffering and death. What is needed is greater support for countries prone to drought to make necessary provisions for disasters rather than struggling under the burden of debt.

Second letter from Eritrea

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On 24 May 1992 the Eritreans celebrated the first anniversary of "liberation," their victory after 30 years of war with the Ethiopians, who in 1962 annexed Eritrea as one of their provinces.

In December 1983 I described my first visit to Eritrea.[1] The base hospital in Orota where I stayed was camouflaged, and the wards were dug out of the rocky hillside. It was not a time of great military activity, but the occasional Ethiopian MiGs buzzed high overhead. I saw and smelt my first and, I hope, last case of gas gangrene.

Now all was changed. At the end of May we flew into Asmara, the capital of Eritrea, via Addis Ababa—a senior biologist from the Liverpool School of Tropical Medicine, a retired general practitioner from Wales who had been in Eritrea during the British military administration in 1948 and 1949, and myself, a retired paediatrician.

The objective of our visit was to see the health services at all levels; to suggest how things might be improved; to look at ways in which the voluntary agencies could help Eritrea; and to increase public awareness of the needs and problems of the newly independent country. (Formal independence will come only after a referendum at the beginning of 1993. The result is a foregone conclusion but is important because until then Eritrea cannot be recognised by international bodies as a separate state and have a seat at the United Nations or the Organisation of African Unity.)

Asmara

Asmara is a delightful city of 500 000 inhabitants. Situated 2500 m above sea level, it has a temperate climate, usually with a slight breeze. The central part of the city was built by Italian colonists between 1890 and 1941. There is a district of low stone houses, where the Italians segregated the Eritreans and which now contains the poorer Eritreans. The main streets are wide and lined with palm trees. Interestingly, there is a street named S Pankhaust (sic) Street, after the suffragette, who was a violent opponent of the Italian colonisation and died in Addis Ababa in 1962. She was one of the people who supported the erection of a small memorial stone in Woodford, Essex, against the use of aerial bombardment by the Italians in Ethiopia.

Asmara is dominated by the Catholic cathedral; almost as large and impressive are the Orthodox cathedral and the chief mosque. Despite its three religions there is no friction. The Eritreans say, "We are all Eritreans. We fought together and will live in peace together." This tradition of tolerance was demonstrated by their humane treatment of Ethiopian prisoners of war, which I saw for myself in 1983. At the height of the conflict the Eritreans gave their prisoners the same meagre rations as they had themselves. During the final Ethiopian retreat the people of Asmara gave water to the exhausted Ethiopian soldiers.

Though Asmara itself was not damaged during its long seige by the Eritreans, the economy and the agricultural infrastructure, on which 80% of the population depends, were largely destroyed during the war. There are still half a million refugees in camps in Sudan. Massawa, the chief port for Eritrea and Ethiopia, was almost completely destroyed by an Ethiopian aerial bombardment after its capture by the Eritreans. Fortunately, five cranes on the dockside were undamaged, and we saw them unloading grain from Christian Aid and sugar from China.

The Eritrean health service consists of the usual three tiers—primary, secondary (regional hospitals), and tertiary care (a central referral hospital in Asmara). Primary health care operates at three levels. There are the part time village health workers who are mainly employed in agriculture or other rural occupations. They deal with minor illnesses and injuries; educate the community in hygiene, nutrition, and self sufficiency in health matters; and refer the more serious cases. The health station, serving about 10 villages (5000-10 000 people) has four or five medical assistants, a pharmacy, and tents or huts for short stay patients. The health centre serves about five health stations, with a staff of up to 15 of various grades, a small laboratory, a laboratory technician, and wards for patients. There are no doctors below the hospital.

The eight regional hospitals, with 70 to 200 beds, have a staff of four to six doctors and up to 60 nurses. There is a permanent shortage of drugs, particularly expensive ones—for example, for leishmaniasis. Two of the three regional hospitals we visited had a barely functioning *x* ray machine, and the third had none. No health station had electric power, but one health centre was powered efficiently by solar panels. Two hospitals had solar panels inadequate to cover all requirements, and there was no night storage. There was no radio or telephone link between the hospitals and the peripheral units. Laboratory technicians were in short supply everywhere except in Asmara. There the Central Hospital and Central Laboratories were relatively well equipped and staffed.

The area around Asmara which we visited had been occupied by the Ethiopians for 30 years, and little attempt had been made to maintain the buildings and equipment. In those areas in the north which had been held for many years by the Eritreans the situation was probably better, but the shortages would be the same.

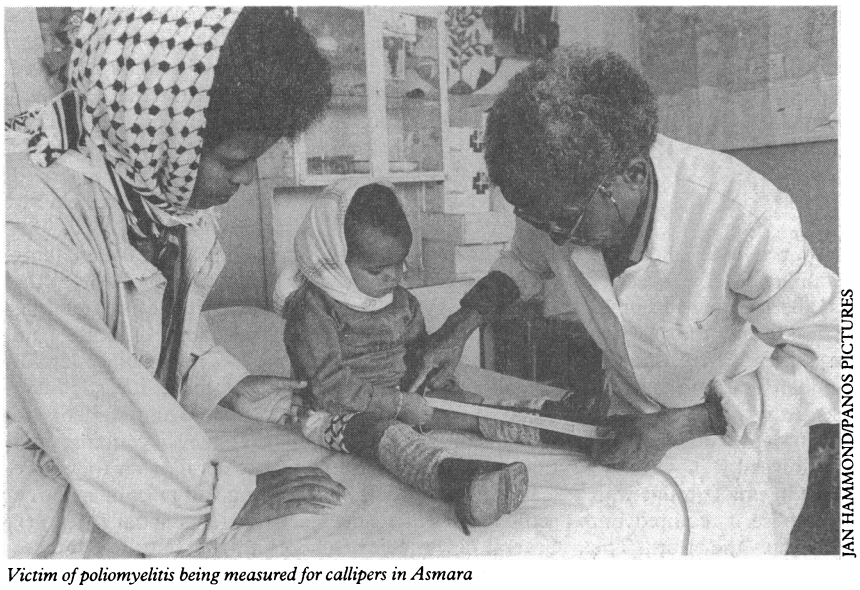
Owing to a series of droughts and bad harvests the food situation was critical. Stocks were very low and cases of malnutrition were already being reported from isolated rural areas. Malaria, usually due to *Plasmodium falciparum*, is seasonally common. Other diseases were pulmonary tuberculosis, infantile gastroenteritis, pneumonia and bronchitis, amoebiasis, giardiasis, schistosomiasis (*Schistosoma mansoni*), leishmaniasis, ascariasis, and tapeworms. Giardiasis is endemic and seems to cause acute gastroenteritis with vomiting in small children. If this proceeds to a chronic form with malabsorption it can lead to marasmus. Some immunity at intestinal level seems to develop in adults and probably in older children.

Future

What of the future? The Eritreans are industrious and optimistic, with educated middle classes and skilled working classes in the towns. Forty years ago the hills and valleys were thickly forested. Now drought, long term cutting for firewood, and strategic destruction of trees by the Ethiopians to deprive troops of cover have left few trees, and the topsoil is being washed away. Enormous efforts have been made since liberation. Afforestation schemes have been started, and millions of hours have gone into contouring the hillsides with low stone walls to hold up the water and prevent further erosion. Dams and reservoirs are being constructed.

It is impossible to predict when the country will be once again self sufficient in food. Minerals and oil are an unknown quantity. A fishing industry on the Red Sea coast has started up, but the Eritreans have not yet learnt to eat much fish. Factories which were dismantled and taken to Ethiopia are being brought back, and there is the possibility of starting up low wage light industries for exporting to other parts of Africa or the Arab states. Until after the referendum foreign capital investment is likely to hang back and loans from the World Bank and the International Monetary Fund will have to wait. However, with their motto of "self sufficiency," which sustained them through 30 years of war, the people of Eritrea are unlikely to want to become ensnared in debt repayment.

Despite all the problems there is a feeling of optimism, a will to succeed, and a tradition of democracy and free speech, which could make Eritrea one of the most successful states in Africa.



JAN HAMMOND/PANOS PICTURES

Victim of poliomyelitis being measured for callipers in Asmara

1 Black J. Letter from Eritrea. *BMJ* 1983;287:1952-3.

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