

Natural Disasters in Bangladesh: A Continuing Threat to Development

BANGLADESH, with its remarkable economic recovery of 1990, until very recently appeared to be embarked on a path of sustainable economic growth. In 1990, following the serious setbacks of 1988 and 1989, GDP grew by 6.2 per cent (led by the agricultural and manufacturing sectors). Sizeable increases in exports and a slower growth of imports resulted in a narrowing trade deficit. Benefiting from good weather, the performance of the economy also was supported by significant reforms in economic policies and programmes, including improved agricultural policies, trade liberalization, investment incentive schemes, measures to better balance the public and the private sectors and financial reforms.

Despite serious direct and indirect costs stemming from the Gulf crisis, and complications associated with the process of transition to democ-

cracy, projections earlier this year remained generally optimistic, expectations being that the economy would be able to maintain reasonable growth with continued export expansion and a sustainable current account deficit, thus achieving significant gains in income per capita.

However, the May 1991 cyclone largely invalidated those projections. The Joint Task Force of the Government of Bangladesh and the United Nations has estimated the total loss due to the catastrophe at \$2.4 billion. As a consequence of widespread damage to standing crops, the loss of a cropping season in the coastal area due to severe salinity and destroyed government and private food stocks, considerable additional food imports are required. Damage to buildings and houses, physical infrastructure and industrial plants implies significantly increased imports of capital goods and other manufactures.

The virtual disappearance of the shrimp hatcheries of the country will entail a major loss of export revenue. There also has been extensive damage to textile plants, with the possibility that a good part of ready-made garment production, recently the largest export earner, will be lost.

As a result, the need for external resources will intensify in the short term, and the need for additional assistance may continue even after completion of immediate relief and rehabilitation efforts.

Even if the economy were able to continue to sustain recent growth rates of around 3.5 per cent per year, it would take nearly six years to recover from the direct and indirect losses caused by the cyclone.

However, additional and sustained aid flows of about 30 per cent above real current levels would allow Bangladesh to overcome the losses in

about three years. At the recent Aid Group meeting donor commitments for the current fiscal year stood at \$2.3 billion, close to suggested levels.

Expected additional commitments by some donors would increase that total. A number of other international actions in favour of Bangladesh, including alleviation of its debt and debt service burden and withdrawal or significant dismantling of trade barriers, particularly with respect to textiles, would also be of benefit.

The issues relating to the reconstruction and development needs of Bangladesh stemming from the recent disaster having been addressed, it must be emphasized that, of the last four years' economic performance, three have been dominated by the impact of natural phenomena. Clearly, issues of direct relevance to its environment and ecology (and

those of the neighbouring region) need to be quickly and adequately addressed. Recurrent disasters not only negate the gains of domestic effort, but also reduce the effectiveness of donors' contributions to development. The challenge of meaningful disaster mitigation, preparedness and prevention cannot be met by the efforts of Bangladesh alone, or those of the region, and must be adequately supported by the international community. In the programme of Action for the LDCs for the 1990s support was pledged for implementation of a flood control programme in Bangladesh. In particular, the Action Plan on floods, prepared by the World Bank and adopted at a conference in London in 1989, needs to be fully and timely implemented and adequate external resources provided for its purpose. (UNIC DHAKA)

SAPIAN, Philippines: On the fringes of this coastal town are its island villages, reached only by motorised outrigger boats.

Water is brought by boat and sold by hawkers. Island villagers pay as much as 20 pesos (a little under a dollar) for a gallon of drinking water.

This in an area where the average monthly income ranges from a low of 90 pesos (US \$3.30) to a high of 3,250 pesos (US \$120). Just 27 kilometres away is Roxas City, the capital of Capiz province, where city residents with no piped water supply pay only 2 to 3 pesos for a gallon of well-water or 5 pesos (US \$0.18) for a gallon of rainwater.

"I can't imagine how the people there survive," says a social worker.

"We can't dig for water here as it is rocky," says Estrellita Estoque of nearby Ivisan town. She buys water brought from a community well by a hawker who is paid one peso per gallon of drinking water. Another, half peso goes to the person who actually pumps the water from the well.

Mrs Estoque and her husband and only son use eight gallons of water a day for all purposes, including drinking. She looks wistfully at the water tank of her neighbour, from whom she sometimes asks for

Where a Water Tank Can Mean Survival

In areas where natural conditions make water difficult and costly to acquire, innovative technology can help. by Paul Icamina

water when seasonal rain has filled the tank to the brim. She would dearly like to have such a tank, which is made of ferro-cement.

Here in Capiz province, in northern Panay Island in the central Philippines, geological conditions make potable water difficult to find. In some areas, only brackish water is available. During droughts, villagers walk long distances to fetch water of dubious quality from streams and open wells.

In Saptan town there is no piped water system. About three out of ten households surveyed by the Capiz Development Foundation, Inc. (CDFI) have water problems. The average distance of a household from a communal water source is 160 metres.

Water-related ailments (stomachache, diarrhoea and typhoid) affect 15 per cent of residents in Saptan, according

to the CDFI survey.

The CDFI is a non-government organisation which promotes self-help projects like the water tank made of ferro-cement (welded wire mesh and cement) which Mrs Estoque dreams of. However, a 4,000-litre tank costs 7,000 pesos (US\$280), a prohibitive price for Mrs Estoque at the moment.

The CDFI is trying to bring the cost back down to the previous 4,000 pesos (US\$148), or roughly one peso per litre for a 4,000-litre tank. With funding from Canada's International Development Research Centre, more than 500 of these tanks have been installed in villages.

In Capiz province, rainwater is traditionally stored in bamboo containers or earthen (and, lately, recycled rubber) jars, plastic containers, galvanised iron tanks and cement

cisterns.

The ferro-cement tank costs about the same as a galvanised iron one. It is more sanitary because it doesn't rust but it needs yearly clean-ups and regular maintenance. And it is durable, built to last for about 30 years.

The water tank is made of welded wire mesh (replaced recently by chicken wire mesh to reduce the cost) wrapped around steel rods which give shape to the tank. Cement is then plastered on both sides of the wire mesh.

Rainwater from the roof and eaves is channelled into a hole at the top. A net, sands and stones serve as filters. A tap is located near the bottom of the tank where an external tube indicates the water level inside. To ensure that water from runoffs is clean, plastic sheets sometimes line part of the gutter.

It takes trained technicians about two days to build a 4,000-litre water tank. These technicians have trained other villagers to make the tanks themselves. Villagers, including women, are taught the basics and a model is built for the community.

"The advantage with the ferro-cement water tanks is that all materials are available locally," says former Capiz governor Cornelio Villareal, Jr, who is CDFI executive director.

"This is why we are keen on popularising the tanks, as a way of easing the province's water problems."

Mr Villareal is optimistic about the future of the water tanks, saying the CDFI has been asked to build them in other provinces and even in Manila. Because the tanks are light enough to be transported, he is even thinking of CDFI making prefabricated water tanks for distribution to other towns.

Monsoon rains are now falling on Capiz province again. But a scorching summer was preceded by a dry spell that stretched on from late last year. For those lucky enough to have the water tanks, there was at least enough water to drink. —Depthnews

THE first man to climb the world's highest peak has called for massive efforts to raise the status of children around the world.

"Present efforts for the welfare of children are simply not enough. There are vastly greater amounts of work to be done. The progress has been slow and so more efforts are needed," says Sir Edmund Hillary in an interview.

Sir Edmund, along with Nepal's Tenzing Norgay, became the first man to set foot on the 8,848 metre high Mt. Everest in 1953. He was named by the UN Children's Fund as special representative for the Children of the Himalayas last March.

Sir Edmund joins other celebrities — Peter Ustinov, Liv Ullmann, Harry Belafonte, Sir Richard Attenborough and Audrey Hepburn — in helping

Everest Conqueror Sets Out for Peak Helping Children

publicise the needs of children throughout the world.

In support of UNICEF, the Everest hero will continue the work he has undertaken for over 30 years to benefit the lives of children in the Mt. Everest region. He said he would prefer special emphasis on two UNICEF type of operations as far as children were concerned: education and health.

The welfare of the girl child is far more important in terms of social development in the

Himalayan regions. "Girls are far more useful in all the tasks whereas boys just hang around," Sir Edmund says.

"In my new capacity of UNICEF special representative for the children of the Himalayas, I will act as public relations man for the cause of the toddlers of the snow-capped mountain region," he says.

He has been involved for the last 30 years in helping build schools, hospitals, bridges, water supply pipelines

and airstrips to benefit Sherpa community around Mt. Everest — one of Nepal's remotest and inaccessible regions.

The Khumjung school he helped found in 1961 with 40 students now boasts of 404 students. This gives Sir Edmund immense pleasure. It was the first school in the region.

The shortages of able and trained teachers in the country, specially in remote regions, are a serious handicap to education in Nepal, Sir Ed-

mund says. A trained and qualified headmaster who could make efforts and sacrifices is a rare thing in Himalayan schools. Improvements in the standard of teaching are the most important challenge.

Born in Auckland, New Zealand, Sir Edmund has served as his country's ambassador to Nepal, Bangladesh and India. He was president of the Volunteer Services Abroad. New Zealand's volunteer air organisation for many years. He has written eight books about his ventures.

He continued his interest in the Himalayas before turning his attention to the Antarctic, as head of the New Zealand team with the British Trans-Antarctic Expedition. He and four companions became the first party to use vehicles to reach the South Pole. Sir Edmund has accompanied US astronaut Neil Armstrong in a small ski plane to the North Pole.

He returned to the Himalayas in 1960 for further research and exploration.

He lost his first wife, Louise Mary Rose Hillary, and his daughter Belinda in a crash of their small plane in the Everest region. His only son, Peter, is also a famed mountaineer and, like his father, an Everest hero.

In 1977, with a crew of three jet boats, Sir Edmund travelled the Ganges river against the current from the ocean to its source in the foothills of the Himalayas.

During his visits to Himalayas, his focus has always been on the welfare of the Sherpa people, especially the children and women. In accepting the new assignment, he spoke of his endeavours in the Himalayas and his close relationship with the mountain people.

"I am very pleased we are joining forces," he said referring to the activities UNICEF has been sponsoring in the Himalayan region.

After doing so much of mountain climbing, he said, his main ambition was to return to sea level and turn his back to the mountains. That is not to be.

"I am honoured to become UNICEF special representative for the children of the Himalayas, and I will do everything possible to advance their cause," he said.

Sir Edmund said he was an "enthusiastic puppet" for UNICEF and would do what UNICEF wanted him to do for the welfare of children. —Depthnews Asia

Bangladeshi Women Want Less Children

A steady improvement in child survival is helping keep fertility down. by Mostafa Kamal Majumder

WOMEN in Bangladesh are having less children. The average number of children born to a woman was 4.9 in the late 1980s, compared with 7.5 in the mid-1970s.

The rate brings Bangladesh, one of the world's poorest nations, considerably closer to the Asian average of 3.3. Desire for modest family size, increased prevalence of contraceptives, long duration of breastfeeding, improvement in child health care and child survival rates and among the causes of this declining fertility.

These are among the findings of the Bangladesh Fertility Survey (BFS), the country's data base on population concerns.

Conducted by the National Institute of Population Research and Training with World Bank assistance, the BFS is based on interviews of 11,906 women aged under 50 from 11,236 sample households between December 1988 and April 1989. Survey findings were released recently. An earlier BFS was made in 1975.

One of its findings is that the average age at marriage of girls had risen from about 16 to about 13 over the 14 years since the first BFS. Exceptionally early marriage for girls and large age differences between husbands and wives are customary.

Female education does not appear to be the main driving force for the rise in average ages at marriage since the averages are similar for all educational groups.

What might be responsible, researchers suggest, is the age

structure of the population. Due to a rapid population growth (2.2 per cent), younger age groups are larger than older age groups. And since girls marry considerably older men, there seems to be a shortage of eligible bridegrooms.

The survey found a ratio of three girls in the 15-19 age group to two men in the 25-29 age group. Overall, however, there are 104 males to every 100 females in the country.

The rising average age at marriage of girls, however, is not considered responsible for the decline in fertility rate. A decreasing rate of widowhood, on the other hand, is believed to have been pulling the rate upward at older ages.

Fertility would be greatly reduced if women were able to prevent unwanted births. According to the survey, most women in Bangladesh prefer a family of two or three children. A desire for one son is widely felt, but there is no evidence that more one son is wanted.

Further improvements in the quality and coverage of family planning services can do much to translate favourable attitudes into fertility regulating behaviour, the survey suggested.

The level of contraceptive practice rose from more than two out of 10 in 1986 to three persons out of 10 in 1989. This is chiefly because of the use of oral contraceptives which nearly doubled from 5 per cent to 9.4 per cent during the three years.

Pill continuation rates are not high as about a half of all women stop within 12 months of starting. Moreover, the method requires constant re-

supply. The survey shows that four out of every 10 users of pills and condoms rely on home delivery of supplies by field workers.

The survey noted a gap between attitude and behaviour in that nearly one-third of all currently married women say they want no more children but are not using any method. An additional 14 per cent want to postpone the next birth for at least two years but are likewise not practising contraception.

The mean duration of breastfeeding — 28.7 months — is almost the same as the finding of the first fertility survey of 1975. This shows that extremely prolonged breastfeeding is still the custom in Bangladesh.

BFS findings imply that many mothers breastfeed until they become pregnant. On average, breastfeeding protects mothers from conceiving for about 12 months.

Preventive health care for mothers and children has improved, radically lowering child mortality rate. The proportion of mothers receiving anti-tetanus injection during pregnancy went up from 4 per cent in 1983 to 26 per cent in 1988. Immunisation coverage rose from 12 per cent to 33 per cent during the period.

Infant mortality rate fell from 130 to 120 per thousand from 1980 to 1988, the survey found. The rate of children dying before age five was about 19 per cent between 1979 and 1983, and about 24 per cent in the early 1970s.

A gradual but steady improvement in child survival rates is helping keep fertility down, the survey pointed out. —Depthnews Women's

25 Years on — Small is More Beautiful Than Ever

A simple machine that can make barbed wire for use in developing countries is a perfect example of the small-is-beautiful philosophy that was preached by Fritz Schumacher 25 years ago. These low-tech, environment-friendly machines have great relevance in the Third World. Gemini News Service reports how Intermediate Technology, which Schumacher founded, has acquired greater international acceptability in development programmes. by Gillian Forrester

Goats are eating up the trees planted by development workers in Ghana and farmers in Zimbabwe need cheap fencing. The answer: an inexpensive, low-tech gadget that can make barbed wire for use in countries where otherwise, pricey foreign imports would be the only solution.

Enter Intermediate Technology (IT), the agency begun 25 years ago on the simple principle that small is beautiful. From its base in London, it supports projects in the belief that what is often

project from their professors and the chance to show off their invention at the anniversary party.

"You can really feel the enthusiasm here," said one student. It is not like "offices where people are just sitting in their desks because they are paid to sit there."

The next step for their project is to simplify it, so that the bicycle needed to make the machine does not need fancy gears or cable brakes. They will also have to write a manual so others can make it. At the same time, diagrams

gadget fits in with the practices of people who need it — is the most important part.

The goal, as with anything developed by IT, is that the community served by the machine can own, operate, and maintain it without depending on outside knowledge or parts and that it does not harm the environment or people.

Lahiru Perera, a mechanical engineer from Sri Lanka who is now an IT project officer, used to work for the largest hydro company in his country.

He said he could see how in appropriate some of their projects were, but was unable to do anything about it.

The projects were controlled by countries who donated help and money yet did not understand the needs of the people.

Perera said pipes were being shipped in that could easily have been made in Sri Lanka, and foreign consultants were brought in and "treated like gods," he said.

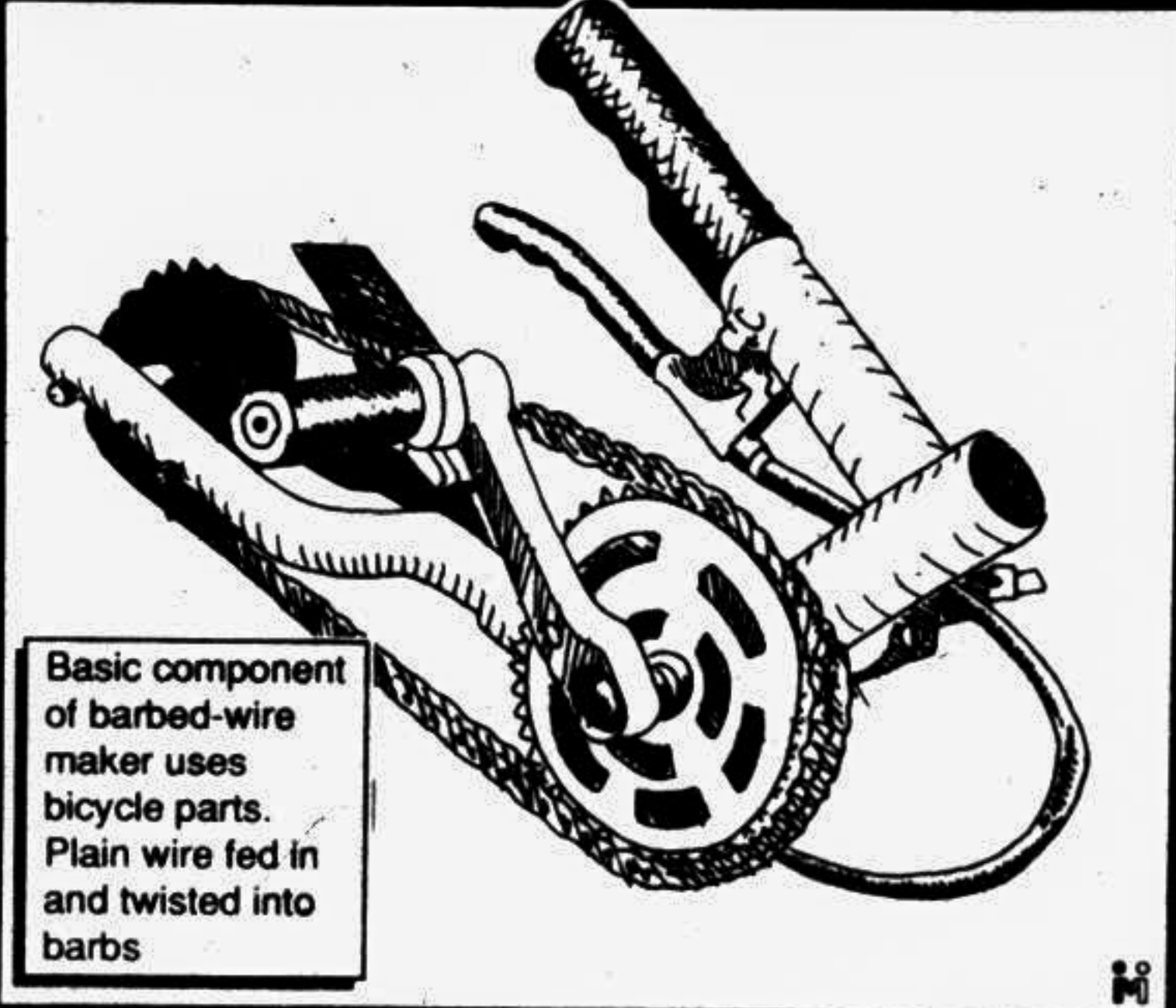
Now Perera is working with IT, helping people build and use water wheels to make their own power. There are more than enough streams and rivers in Sri Lanka that people have been using for hundreds of years and water wheels do not flood the surrounding land like dams do, and are easy to make.

Water wheels are now being used to make power for grain and sawmills, for cooking, lights and hot water.

Said Perera: "The hardest thing to do is to convince local people that foreign imports are not the best thing. They must believe that they have the power and the knowledge to build things that will work."

When Fritz Schumacher founded IT, his belief in helping people help themselves was relatively new. In 1960 he wrote in the London Observer that development "demands a deep respect for the indigenous culture of those that are to be helped — maybe even a deeper respect than is possessed by many of them themselves."

Intermediate technology



needed to solve knotty development problems is simple solutions.

Over the years it has helped people to come up with ploughs taken from an ancient design that could be pulled by donkeys, machines to dehusk and remove the oil from sunflowers, using the husks as fuel for the boiler, water wells, stoves and sugar-producing machines.

The problem of making barbed wire cheaply may now have been solved and the answer was on display at IT's 25th anniversary celebrations in London.

Three engineering students chose to tackle the project and created a hand-held gadget made of bicycle parts that could turn straight ordinary wire into twisted fence wire with inch-long barbs that could then be nailed to fence posts.

The students got a "distinction" mark for the

and models of the machine will be sent to Zimbabwe to be tested by the people who need to use it. In that country, there is plenty of wire, but no means of making it into fence material.

In northern Ghana, where free-running goats eat up trees planted by development workers, fences are in great demand. The wire-making machine caught the eye of Judy Longbottom, who has just come back from Ghana. There are plenty of bicycles in Ghana, but a great shortage of wire.

Doctors Who are not Where They're Needed

VIENTIANE : Vilaya Sanavongsa, 20, is preparing to return to her home province to take up work as one of Laos' 1,200 plus doctors.

Unlike many of her peers who will look for better paying jobs in this capital city, Ms Vilaya is determined to return home to practise.

Foreign aid workers say young doctors who are ordered by the government to return to remote provinces often refuse outright. "They don't want to return because they have inadequate salaries there, are isolated and have no institutional support," says one foreign doctor working here.

At Vientiane's Mahosot Hospital, where Ms Vilaya is training, doctors receive a salary of US\$30 a month, the same as a hotel receptionist gets. But, in this city, one is close to modern amenities and probably family and opportunities to practise privately.

"How can we get students to go to remote provinces?" asks Dr Somphone Phounsavath, director of Mahosot Hospital, which is the country's largest medical school. "From some provinces we only get two or three recruits annually."

About half of Laos' 1,200-plus doctors are concentrated in Vientiane province which contains only about 12 per cent of the total population.

Laos has an estimated one doctor for every 3,300 people — a significant gain since the communist takeover in 1975 when the country fielded one doctor for every 30,000 people.

In this country of only four million people, health care is a daunting challenge. Ms Vilaya says that gastro-intestinal illness is one of the most threatening diseases facing her community back home.

Life expectancy in Laos only 45 years. That is more than 15 years lower than that of its southern neighbour Thailand. Infant mortality stands at 118 babies dead for every 1,000 born. While severe malnutrition is not widespread, moderate malnutrition affects 35-40 per cent of the total child population.

Health authorities say about 85 per cent of the country still lacks adequate health care facilities. Between 1965 and 1975, when two million tons of bombs hit the country — most dropped by American fighter jets — health care made no gains. It was hard enough

then just to find adequate food to eat. Rehabilitation centres today are still treating victims of the bombing and issuing artificial limbs.

International assistance is working to bring more basic health care to remote areas, says Dr Somphone. His hospital, the oldest and biggest in Laos, was built by the French in 1920 and improved by the Americans in 1973.

Its 450 beds are rarely full until after the monsoon season when rampant respiratory illnesses set in. It suffers from many deficiencies, including lack of proper sanitation and an insufficient supply of antibiotics.

The United Nations Development Programme (UNDP) has allocated funds to build new septic tanks, paint the walls and create a more sanitary environment, said UNDP country representative Ameerah Haq-Perera.

Other donations have put Mahosot Hospital on the way to providing more modern health care. Computer scanners are now being used to check bile, kidneys, hearts, lungs and breasts.

from home. As in other developing countries, the walk and ride from homes to professional health care is lengthy. It can take days.

Nearly 80 per cent of all patients reaching Mahosot Hospital, doctors say, have already taken some kind of medicine, usually to their detriment. Those who administer the medicine at home rarely know what the right doses are, much less what the disease is.

One of the main tasks facing health authorities is to eliminate cultural superstitions like the one that dictates a rice, salt and water diet for lactating mothers for three weeks after delivery. The right diet for lactating mothers, of course, is a normal diet.

Teaching preventive health care goes a long way towards preventing these problems, said Dr. Somphone.

"I've never seen a malnourished child that only lacks food, there must also be a degree of pure ignorance contributed by the mother," said a doctor at Mahosot Hospital. "What kills is a lack of education — for example, eating only rice and fish and no vegetables." —Depthnews