shelter for the homeless
The Prime Minister of Sri Lanka, the Honourable R. Premadasa, initiated the movement at the UN General Assembly which led to 1987 being declared the International Year of Shelter for the Homeless. He agreed to be interviewed for World Health by Mr Manik de Silva, the Editor of the Colombo Daily News

Wh: Mr Prime Minister, can you tell us briefly what inspired you to initiate the move to have 1987 declared the UN International Year of Shelter for the Homeless?

PM: I have grown up among the urban poor of Colombo. I have worked with them throughout my youth and adulthood. I have been inspired by them—by their struggle, creativity and humanity.

Through the successful housing programmes implemented in Sri Lanka from 1977, I have come to believe that housing is the finest form of investment in human beings. It is this conviction that made me appeal to the 35th General Assembly of the United Nations in 1980 for an International Year to be devoted to Shelter for the Homeless. Let me quote a few lines from my address to the United Nations:

“If we are able to give a solid house with a solid roof to each family, we will be providing them with not only a roof over their heads but also peace of mind, work, good health and more than anything else, a capacity to develop self-confidence. It is my belief that housing provides a key to the solution of several of these disabilities. The problem of housing…is a global problem.”

Wh: Can you also briefly explain for readers of World Health how Sri Lanka’s “Million Houses Programme” was born and the progress it has made?

PM: Sri Lanka’s Million Houses Programme was born out of two sources. The larger and more general source was what we call the “national mainstream,” or the traditional process of housing by individual families. The more immediate source was the earlier Hundred Thousand Houses Programme from 1978-83, which was successfully implemented and from which we learnt a great deal. Therefore, what is very important about its birth is that it was internally generated by critically evaluating our own na-
The Million Houses Programme is a national shelter programme of both the private and public sectors, spread over six years from 1984 to 1989.

Progress-wise we are on target. In the two main sub-programmes focused on the rural and urban poor, which is the core, we have reached over 175,000 families during the last three years (1984-86). When you add the output of the other four sub-programmes, the total works out to nearly 400,000 families getting one of their basic needs satisfied.

WH: It is safe to say that all countries face the problem of people lacking adequate shelter, but circumstances vary widely from one nation to another. Do you feel that the Million Houses Programme is replicable in other countries?

PM: The philosophy and methods of the Million Houses Programme are certainly replicable, though I prefer the word “learning” to “replicable”. That is, it provides a great opportunity for others to reflect and learn. Let me illustrate this with an example. We have found it much more productive to support the housing initiatives of poor families and communities than for the government simply to build houses. This is called support-based housing, and it is just like agriculture where farmers do the growing while governments create the necessary conditions. In this approach, the family is in the centre of the development process. Family members make all the decisions, control the building and assume full responsibility for the product.

Let us examine another popular myth—that housing is not economically productive. On the contrary, we consider it highly productive, to the extent that it enhances human productivity, especially of the poor, and that it contributes to political stability. That myth, I think, has acted as a fetter in hindering more political commitment for housing.

WH: Our particular interest is in the impact that the IYSH may have on public health, community health and individual health. Certainly there is a direct correlation between poorer housing and poorer health. Do you feel the Year can contribute directly towards improving health in the world?
PM: I feel the Year can contribute immensely towards improving the primary health, particularly of the world’s poor. How? Take the way in which we have linked primary health to the Million Houses. The link is achieved through the 4,500 Village Level Development Councils or Gramodaya Mandalayas. They constitute the lowest tier of local government. That is, they function at the base, which is closest to the point of action.

Now the Village Level Gramodaya Health Centres, which are simple buildings for our Family Health Workers to live and work from, are built by the Gramodaya Mandalayas using local materials and traditional technology. It is these same councils that select the poor families under the Million Houses Programme. The result is that we have mobilised thousands of small units to work from the bottom up on a preventive health programme, as opposed to the hierarchy of hospitals which operate at the curative end. Do you not agree that a strategy based on such a largely spread network of units at the base, firmly committed to preventive health, is capable of realising significant trade-offs and dividends for primary health?

WH: Of course. The slogan that who chose for World Health Day in 1973 was “Health begins at home”, and by “home” or “shelter” is meant much more than simply a roof over one’s head. It refers also to water supply and sanitation, a safe environment, the food that is available to a family and the quality of life in general. Do you feel confident that the Year can raise awareness throughout the world about all these aspects of modern living, in addition to the basic need to house the homeless?

PM: Indeed, I feel very confident that housing is infinitely more than a roof: housing is a catalyst and a stimulus for all the basic needs of food, clothing, health, association, communication and so forth.

The home-garden provides basic food needs. Rest and protection enable people to work better and also to engage in home-based production. With the incomes earned, they buy their basic consumer needs including clothing. All this directly contributes to improved health and the environment. Let’s not forget the benefits to the child and the mother. The house is also a place in which people meet and communicate. So, in a very palpable sense, housing is more than mere shelter: it supports the very act of living itself. In other words, housing is central to all aspects of human development.

WH: The charge is sometimes made that “International Years” raise awareness about a problem for just one year but then all impetus is lost. Do you think there is a risk of this happening in the case of IYSH?

PM: I would say that IYSH is, in that sense, different from all previous International Years. We were very conscious of that pitfall and, from the very start, conceived of it as a continuing process rather than a single year. It is in that spirit that the UN resolution calling for the International Year talks of “solving the housing problem of some of the homeless by the year 1987, and of all the homeless by the year 2000”. We always perceived the Year as a process, which would gather momentum from within. The momentum would come with the renewal and increasing of political commitment to housing. I stressed this same point in my last address to the UN Commission for Human Settlements (UNCHS) at Istanbul last year, when I appealed for the Year to be transformed into a Decade for the Homeless.

WH: What particular actions are planned by the UN within the framework of the Year?

PM: The UN has designated the UNCHS of HABITAT, based in Nairobi, to act as the executing agency for IYSH. UNCHS held its 10th Session in Nairobi in April. This year also happens to be the 10th Anniversary of UNCHS since it was first set up in Vancouver. That special session was open to all countries whether they are members or not, and the issue discussed was “A new agenda for housing.” We were all able to learn from the important experiences of the past, and to arrive at a clear as well as a new set of positive strategies. Crucial to this exercise will be the renewal of moral and political commitment for housing as a means of helping the poor to change their own conditions.

The groundwork for this new search is being laid both by govern-
ments and non-governmental organizations, through a widespread debate on the critical issues in relation to concrete programmes and experiences. In this context, the Sri Lanka Million Houses Programme is a key candidate.

WH: All too rapid urbanisation has led to the cancerous growth of slum areas throughout the Third World, accompanied by a whole host of health problems. In your view, what can realistically be done about this disturbing situation?

PM: A great deal can be done. I am very optimistic. Again, let me answer with reference to what we did and how we did it.

What we did was to look for the answer within the problem itself. We realised that the poor themselves are the greatest resource for their own change. How? Take the slums and shanties themselves. Don't they reflect great human determination, ingenuity and creativity? Does not a shanty settlement contain, behind its surface appearance, a huge reservoir of latent initiative and hope? This approach has worked wonderfully in the Million Houses Programme. It has released unimaginable creative energies and talents of poor human beings. This is why I spoke earlier of investing in human beings. All this time, we have been looking for solutions from outside the problem—and you know the dead-end we had reached.

I would like to stress two other points. First, boldness. Second, the need to think big. Boldness derives from one's deep faith in the people—in their sincerity, humanity and reasonableness. Programmes need to be rooted in the people and their culture. When we changed the housing policy in 1983, from the conventional approach of government as doer to government as supporter, we were boldly changing paradigms. We learnt most from "user families" themselves. Then, when we articulated the new programme, we thought big, meaning on a truly national scale. In other words, we had taken a leap in thought from petty projects to countrywide programmes. Thus we went to scale, and it paid off. Any development effort, worthy of its name, has to have these attributes of commitment, boldness and vision.

What is IYSH?

Although adequate shelter has been universally recognised as a basic right for more than a quarter of a century, the overall conditions of shelter and basic services for more than 1,000 million of the poor and disadvantaged in developing countries—and for a significant number in industrialised countries—is deteriorating alarmingly. Few governments today can claim to have national policies or programmes that effectively meet the basic shelter and related needs of their people, especially those of the poor and disadvantaged.

Today, about one quarter of the world's population does not have adequate shelter; these people live in extremely unsanitary and unhealthy conditions. In the past 24 hours, not less than 50,000 people have died from malnutrition and disease, much of it linked to inadequate shelter, water supply and sanitation. Most of them were children.

A Sri Lankan community takes in hand its own drainage. "Any development effort worthy of its name has to have these attributes of commitment, boldness and vision."

Photo WHO

Some 100 million people have no shelter whatsoever. They sleep in the streets, under bridges, in vacant lots and doorways. It is not uncommon for more than 1,000 men, women and children to depend on a single standpipe tap for their water supply. And as many as 85 per cent of residents in a squatter settlement may have no access at all to human waste disposal facilities.

It was to focus attention on this situation that the UN General Assembly proclaimed 1987 as the International Year of Shelter for the Homeless.

IYSH is not just a specific year but a programme of action before, during and after 1987. It is based on an awareness that the poor and disadvantaged will build a greater part of the housing they need with their own hands. The philosophy behind the IYSH, therefore, is to secure renewed political commitment and effective action within and among nations to help the millions of poor, all over the world, to build or improve their shelter and neighbourhoods to such a degree that—by the year 2000—it will be possible to integrate them into the process of economic development.
Grossly insufficient and degraded shelter has a severe and pervasive impact on health, particularly in developing countries. Mr Robert E. NOVIC, Responsible Officer for WHO's new programme on environmental health in rural and urban development and housing (RUD), examines the factors that link shelter to health.
Left: Roughly one quarter of the world's population does not have adequate shelter, and lives in extremely unhealthy conditions.

Right: Some 100 million people have no shelter at all; they sleep in the streets, under bridges, in vacant lots and doorways.

Photos WHO/ILO and WHO/UNICEF/J. Ling

these low-income settlements account for a majority of the population, for instance 90 per cent of Youande and Addis Ababa; around 60 per cent of Accra, Kinshasa, Bogotá and Mexico City; about 50 per cent of Lusaka, Guayaquil and Dhaka; and more than 30 per cent of Nairobi, Istanbul, Delhi and Manila.

Roughly one quarter of the world's population does not have adequate shelter and lives in extremely unsanitary and unhealthy conditions, and some 100 million people have no shelter whatsoever. They sleep in the streets, under bridges, in vacant lots and doorways.

The health effects on more than 1,000 million people who today occupy inadequate and degraded shelter are severe and pervasive, and the implications for the future are even worse. Take the annual mortality of children in developing countries, estimated at about 15 million; 50 per cent of these deaths are of children aged under five. Most of these could be prevented if developing countries' standards of environmental hygiene could be brought up to those prevailing in the industrialised world. While many children die, many more somehow survive, although adverse conditions of habitat are likely to have permanently damaged their chances of normal growth and development. The small children of today represent the future of the greater part of the world.

Most of the urban poor live in low quality, over-crowded, self-made shelter which is only marginally served by public utilities and usually lacks an adequate water supply suitable for drinking and maintaining personal cleanliness. Resources will not be adequate for the removal or disposal of excreta and other wastes, so that it is common to see rotting garbage, human faeces and associated insect and rodent infestations. Residents have
little or no access to health care, education, supervised food markets and other facilities which make for a reasonable quality of life and human development. These communities often suffer from greater exposure to dust, unpleasant smells, chemical and noise pollution, and the nature of the dwellings makes them less able to withstand such hazards.

The residents themselves may unwittingly contribute to disease through traditional practices of food preparation, waste disposal and personal hygiene habits which were appropriate when they lived in the countryside but are no longer so in the city. Finally, it should be recognised that poor people are often less able to withstand these hazards because malnutrition and under-nourishment weaken the body’s resistance to disease.

The relationship of shelter to health is both intimate and complex, arising from a myriad of environmental factors as well as from the nature and severity of the major health problems. What should be the biggest considerations in planning and developing the habitat from the standpoint of health?

Historically, environmental manipulation has been one of the most effective tools of public health. Long experience has established that public health benefits are most freely and most rapidly achieved by applying design, engineering and construction practices which eliminate specific hazards. But governments can seldom afford improved housing and community services.

Provision of safe and convenient water supply is the most important single activity that can be undertaken for the health of people, wherever they live. At the end of 1985, WHO estimated that 23 per cent of urban populations and 64 per cent of rural populations were without access to safe and adequate water supplies; and WHO forecast that 1,200 million people will still be without it in 1990.

Human excreta—principal source of the pathogenic organisms of many communicable diseases—is one of the most dangerous substances with which people can come into contact. Infection may occur when faecal matter containing pathogenic organisms contaminates food, water or the fingers and is subsequently ingested. In some developing countries, diarrhoeal diseases account for as much as one-third of all deaths in children under five years of age. WHO’s 1985 estimate was that 40 per cent of city dwellers and 84 per cent of those living in the countryside lacked access to appropriate sanitation, and that anticipated progress up to 1990 would still leave 1,800 million people without.

While pollution of the ambient atmosphere has long been recognised as unhealthy, recent studies are directing attention to the quality of indoor air as a major causative factor in acute respiratory infections. Smoke and soot from heating and cooking fires or from burning charcoal, crop residues or animal dung produce a complex of...
pollutants which affect hundreds of millions of people in developing countries.

Food itself can transmit microbiological agents and toxic chemicals unless it is safely prepared, stored and served. Makeshift shelters commonly lack facilities to protect food from spoilage or from the ravages of insects and rodents. In some developing countries these losses can amount to as much as 30 to 40 per cent of the perishable foods.

Quite apart from malnutrition, living conditions in low-income settlements often influence a person’s resistance to diseases, affecting their mental health and psychosocial state of well-being. Health may be jeopardised by the uncertainty and stress associated with lack of employment, threats to family welfare, effects of poor environment such as noise and odours, the lack of efficient health care services, and generally deficient socio-economic circumstances which hinder education, parent-child relations and “homecraft” or which encourage alcohol and tobacco abuse.

Health promotion in terms of the habitat essentially means ensuring decent shelter, nutritious food, safe water, hygienic disposal of wastes and access to efficient health services. Since health is a beneficiary of economic and social development, health promotion will be most effective when it is included as an integral part of the planning and development of shelter and communities. Ideally, the governments might be expected to ensure safe shelter and basic community services for all citizens. In reality, most countries are far from possessing the resources to achieve this ideal in the foreseeable future. It follows that efforts towards self-help and neighbourhood help represent an important potential for improvement.

There are several WHO programmes whose activities directly or indirectly relate to habitat and health, ranging from community water supply and sanitation to vector biology control and the organization of health systems based on primary health care. A great deal is known about the relationship between housing and health. But it is evident that this information is generally not being used. The challenge for the years ahead is to integrate health information with programmes aimed at developing housing and related community facilities and services. One step towards meeting this challenge was the setting up of WHO’s new programme on Environmental Health in Rural and Urban Development and Housing, known for short as RUD. One of its functions is to serve as a channel for relevant health-promoting information, and to make that information readily usable by architects, housing specialists and urban planners. The primary health care approach will help to ensure that individuals, families and community groups develop their full potential for self-reliant action in housing and health issues.
"His slum, not mine"

From first-hand experience of living in a Philippines city slum, the writer comments: "Somehow, there is an intangible force which binds people to the slum area"

by E. A. R. Ouano

A particular phenomenon in developing countries since World War II has been the rapid population migration from the countryside to the cities, especially to the capital. The waves of rural migration were spurred on by increasing population density, unemployment, unequal land distribution and a lack of amenities in the countryside. Although a number of governments today have re-examined their developmental programmes in favour of rural development, the general trend in newly independent countries was to develop the capital city as a show window and symbol of the new nation. Rural industries were often regarded as remnants of the colonial plantation periods or of primitive societies, even if this sector continued to support the national economy, and to boost the development of urban centres and the new heavy industries.

Migrants from the countryside have diverse educational backgrounds and skills. Some are illiterate and unskilled, while some hold a university degree. Regardless of their individual backgrounds, their first stop is usually a relative's house close to the city centre. Most of the successful migrants rapidly move out of that area to suburban housing zones at the first opportunity, although a number may stay behind on account of the social and political ties they have established. The unlucky or unsuccessful migrants are often left behind. Through the years, the area tends to degenerate into a slum settlement. A number of slum settlements in Manila were formerly middle-class neighbourhoods. When I first moved to "Metro Manila", I stayed in a slum district of Leveriza, in Pasay City. The centre of the area was typical of any slum settlement, with its shanties, catwalks and dilapidated houses, except that the periphery of the area was well developed. Indeed, bordering the squatter colony there are a five-star hotel, a number of old mansions, several embassies, one of the best hospitals in town and first-class shopping centres.

The whole area is criss-crossed by narrow streets, which are used by children and adults as playground, meeting place and garbage pile. When it rains, the streets are flooded, although the water readily
drains an hour or so after the downpour. Inside the settlement, the water may stay for weeks. The houses are connected to the street by catwalks and narrow cemented pathways. Maintaining law and order is a problem. On my second day in the area, I was accosted by a local gang and I was only saved by the timely intervention of a relative.

Six months later, I moved to an upper-class neighbourhood 25 kilometres south of Metro Manila. Since leaving the original area eight years ago, I find myself a regular visitor to the place. My carpenter, furniture maker, tailor, barber, and some relatives are still residing there. Somehow, there is an intangible force which binds people to the slum area and which is absent in well-planned, upper-middle-class suburbs.

In my present neighbourhood, the home-owners have an association. We elect officers, whose duties and functions are defined by our by-laws. In the slum areas, on the other hand, people behave according to undefined rules, working according to their abilities and capabilities. It is this same cohesive force which allows a slum dweller to build a house for only US $100, to survive on a salary of US $100 per month, and to go through all the emergencies and uncertainties of life. Yet an expatriate worker from overseas may find it difficult to live in Manila on US $3,000 per month. A Philippines citizen who builds a US $100 home in the slums will get two to three times as much in the form of free inputs from neighbours and relatives. In the same way, if he receives a monthly income of US $100 he will have rendered two to three times that value in free services to his community.

Rural migrants settle down in the slum areas for security reasons, in spite of all the alarming statistics about law and order. During my six months in the slums, I used to leave my sports car 100 metres away from my house. I could do this with complete peace of mind, but it might not be possible for a stranger. A Philippines citizen who builds a US $100 home in the slums will get two to three times as much in the form of free inputs from neighbours and relatives. In the same way, if he receives a monthly income of US $100 he will have rendered two to three times that value in free services to his community.

In the slum areas of Manila, there are college students and professionally qualified people mixed in with unskilled workers and the unemployed.

The organization and social order prevailing in the slum area can be so complex and informal that it would be easy to conclude it does not exist at all. Recently I requested two of my former graduate students to take photographs of the sanitation and water facilities in the slum areas of their neighbourhood. One of them could not spare the time for this, so the other fellow had to do it by himself. The next day, he came to my office complaining of the neighbourhood tough guys he had encountered. I told him, “I thought you used to brag to us that you could handle the tough guys in the area.” His reply was, “It is his slum; not mine.”

Local residents of a Manila suburb help the undermanned garbage collection unit to clean up the area.

Photo WHO/E. Ouano
Housing is one of the prime concerns of refugees who find themselves on foreign soil after fleeing their own home countries where their lives are at risk

by Annick Billard

The general public remains largely unaware of the enormous problems faced by refugees until massive flights occur which attract a great deal of attention in the media. Indeed, the exodus of hundreds of thousands of boat people from Viet Nam in 1979, of Afghans in 1980 and of Ethiopians in 1985 has captured the public mind to a far greater extent than the regular but less loudly trumpeted movements of families, tribes, whole villages or even entire ethnic groups from one country to another.

Nevertheless, such movements are taking place all over the world and have increased to the point where, according to the Office of the UN High Commissioner for Refugees (HCR), there are no fewer than 12 million refugees around the globe. Moreover, to these must be added people who are seeking asylum and whose status has not been determined, as well as the Palestinians, who are dealt with by another UN Body, UNRWA (the United Nations Relief and Works Agency for Palestine Refugees in the Near East).

The sheer numbers of these refugees demonstrate the size of one of the directly related problems, that of housing. Deciding where to accommodate the hundreds of thousands of people who arrive within the space of a few days in a place where no facilities exist for receiving them is one of the first items to be tackled in the face of such an insurge. The problem is aggravated by the fact that many of them arrive in very poor shape and have as great a need for health care and food as for shelter. Certainly, where there are refugees, housing looms large among their priority requirements.

Wherever population movements occur, some form of shelter has to be improvised within a very short time. Such shelter may be
very rudimentary, but it is essential at least to protect the people from the weather and afford them some degree of privacy when they are left with nothing at all. The deep shock suffered by those who have had to leave everything behind to save their lives must not be overlooked. Shelter has a very considerable symbolic value to refugees, and means much more than just protection against rain, wind or heat. The fear which forced them to flee is succeeded by anxiety for the future. A roof over their heads, somewhere to live, helps them feel that they do exist and gives them fresh hope.

Providing housing for refugees is therefore the first priority. An entire chapter is devoted to it in HCR's "Manual for Emergencies", which points out that "the provision of shelter is a high priority, even when not essential to survival. Shelter must be available before other services can be developed properly." The manual also sets out the rules to be followed to preserve refugees' cultural identity while providing them with the best possible type of accommodation compatible with the emergency. "The location of the refugees may range from spontaneous settlement over a wide area, through organized rural settlement, to concentration in a very limited area. Circumstances can make this last possibility unavoidable, but the establishment of refugee camps must be only a last resort. A solution that maintains and fosters the self-reliance of the refugees is always preferable."

The particular emergency and the speed of events often, alas, leave no room for choice; refugee camps spring up or are dismantled, depending on the circumstances, in countless numbers. Nevertheless, when the emergency first occurs the refugee camp will be the most suit-

Above left: Literally "boat-people," these refugees have built a temporary home in Thailand in the lee of an old fishing-boat.

Right: Refugees in Sudan building their own homes. Shelter has a symbolic value for such people, and means much more than just protection from the elements.

Photos: WHO/UNHCR/J.-M. Micaud and WHO/UNICEF/Penn
A roof for refugees...

ent areas are brought together and where they prepare to leave again for another country. The more permanent camps include those called closed centres. Some countries have adopted this method as an additional discouragement from entering their territory since, while being given all kinds of assistance, the refugees cannot easily leave the areas allotted to them.

Finally, there are settlements which are also for refugees who have come to stay, but which offer them far more opportunities. In such settlements, the refugees may resume an almost ordinary way of life. They live in traditional-type housing which they have generally built themselves, have a plot of land on which they can grow crops, and may even be able to ply some kind of trade. This system, which is becoming common throughout the world once the initial temporary tented accommodation stage is over, is one of the more satisfactory ones. If, for the sake of their own safety, the refugees cannot return to their home countries—and this, of course, is still the best solution—the HCR prefers integration in a country which has consented to accept them. The third possibility is resettlement in another country, which does help to relieve those countries to which the largest numbers of people have fled.

Clearly the greatest burden is felt by the poorest countries, whose own people face serious housing problems and are most vulnerable to natural disasters. They nevertheless accept this burden, despite all their own difficulties, as a demonstration of solidarity. At the 37th session of the HCR Executive Committee last October, Mr Jean-Pierre Hocké, UN High Commissioner for Refugees, commented: “A huge majority (of the world’s refugees) has found shelter in developing countries... Nevertheless, they have been received in an exemplary manner by some of the world’s least prosperous countries, which have offered them hospitality despite an empty table.”

Besides the far-reaching consequences for the economy caused by the settlement of large numbers of people in deprived areas, one of the most alarming yet little appreciated results of housing huge groups of refugees in such countries has been the adverse effect on the environment.

Take the arrival in Sudan, Somalia and Djibouti of hundreds of thousands of Ethiopians in 1985 and 1986. When the flood of people began, the HCR and other emergency organizations provided the newcomers with tents. As time passed and the refugees regained their strength, they began to build their traditional tukuls, huts made of branches which provide better protection against wind and heat than canvas. In drought-stricken countries where every year the de-
sert nibbles away at the ever rarer areas of vegetation, wrenching up hundreds of thousands of bushes to build tukuls cannot but accelerate the encroachment of the desert—which itself has already caused massive population movements all over Africa. One African leader recently remarked: “We are caught up in a kind of tragic progress. One disaster begets another. How can we halt this evil juggernaut?”

The same feelings have been expressed in Pakistan, where what were once forests have become virtual deserts since the arrival of refugees from Afghanistan. Trees and bushes are used for everything: cooking, heating in winter, thatch for roofing, branches to lean against the windows of mud huts to provide shade and coolness. All the greenery of the North-West Frontier Province, where no fewer than two-thirds of the Afghan refugees in Pakistan live, is being depleted in an apparently irreversible process.

Nevertheless solutions exist. Besides avoiding wherever possible the setting up of highly concentrated refugee camps, as the HCR recommends, and trying to supply materials from outside when natural resources seem on the point of exhaustion, the provision of development aid to the host country as well as aid to the refugees would undoubtedly help to resuscitate foundering economies. Building ancillary facilities for the benefit of local population and refugees alike, reviving agriculture, speeding up reforestation, building access roads and so forth would all help to reduce the harmful effects suffered by countries which offer a welcome to huge new communities.

These indeed were the pressing claims made by countries taking part in the second International Conference on Aid to Refugees in Africa, held in Geneva in July 1984. Sad to say, they remained largely fruitless owing to the famine which subsequently struck Africa. As Jean-Pierre Hocké insists: “The refugee problem has now assumed international proportions, and is often inseparable from the problems of political, social, cultural and economic development in the Third World.”

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Refugee distribution in the world

The top 20 countries (as at 1 January 1986)

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<th>Countries</th>
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<tr>
<td>Pakistan</td>
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<td>Iran (Islamic Republic of)</td>
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shelter for the homeless

Millions living on the margins of our great cities have little protection from the elements—and none against disease.

Time and again, the bright lights of the city prove an irresistible attraction for poverty-stricken families living in the surrounding countryside. They converge in ever-growing numbers on the already over-crowded capital cities, only to face drastic shortcomings in housing, water supply, sewage disposal, local transport and job opportunities.

There is little hope that the rapid urbanisation and population growth of each great megapolis will slow down in the foreseeable future. Family planning does not stand much chance in the uneven David-and-Goliath contest to curb population growth. By the year 2025, according to UN data, the cities of the developing world will provide breathing space—and little more than that—for nearly 4,000 million people compared with over 1,000 million today.

Humanity reached its first 1,000 million in total population early in the nineteenth century and never looked back. Society has changed considerably since then, but living conditions have changed little for a disturbingly vast section of mankind. (The World Bank defines 800 million people as "the absolute poor"). For most of them, "shelter" means minimal protection against the elements, none of the amenities which the twentieth century takes for granted—and no defence against disease. These are the truly homeless.

Below: Playtime in the shadow of high-rise flats in Singapore.
Photo WHO/ILO
Below: House-building requires an effort; men at work in Nepal.

Left: Those who live in these shacks can only dream of moving one day to the modern apartments; a scene in a French city.

Below: Homeless and depressed in a European city.

Above: Cairo slum children play in an abandoned car.

Left: An Indian woman draws clean drinking water from the well.

Photos WHO/UNICEF/B. Wolff and WHO/ILO
Health principles of housing
by Morris Schaefer

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helter, along with food and clothing, is a basic need for human survival—to provide protection against the elements and to serve as the focus of family life. Our dwellings should also provide protection against environmental hazards to health, both physical and social. At its best, shelter promotes emotional and social health by providing psychological security, physical ties with one's community and culture, and a means to express one's individuality.

Too often, dwellings fail to provide health protection, much less to promote health—obviously so for hundreds of millions of people who live in marginal housing or who are altogether homeless. But any dwelling that fails to protect people against health hazards is likely to intensify the dangers of disease.

Some of the relationships between human health, human dwellings and human behaviour can be measured; for example, between indoor air pollution and acute and chronic respiratory illnesses, between inadequate sanitation and communicable diseases. Our knowledge of other relationships rests on less definite evidence, and some is based primarily on successful practices—on "what works". Such knowledge may be stated in the form of "principles"—guiding rules of thought and action which, when adapted to specific situations, can provide leaders with the basis for health policies, programmes and activities.

Two types of principle come into play: those that concern the interactions between housing conditions (and use) and human health, and those that indicate the lines of action to be taken to increase the health potential of housing.

Principles of health needs

1. Communicable diseases can be reduced if housing provides for safe water supply, sanitary excreta and garbage disposal, adequate drainage of surface waters, and necessary facilities for domestic hygiene and safe food storage and preparation. In the absence of such provisions, exposure to disease pathogens may be increased, whether through insect and rodent vectors, or directly through faecal-oral and contact infections. In the countryside, it is advisable to separate human living-space from animal quarters.

2. Housing should protect against avoidable injuries, poisonings, and exposures that contribute to chronic diseases and malignancies. But such hazards may actually be increased if houses are poorly sited, contain hazardous structural features and furnishings, generate indoor air-pollution from cooking or heating arrangements and are poorly ventilated, or if chemicals used in the home and home-based occupations are not handled properly.

3. Housing may promote mental well-being, since from prehistoric times the home has been a place of refuge from danger and stress. All too often, and especially when there is rapid urbanisation, stresses may arise from an unhealthy habitat. Overcrowding, squalor, uncertain tenure of the dwelling, excessive noise, crime and threats to physical safety, isolation, and social alienation—all these can damage mental health. (Overcrowding is linked, as well, to increased communicable disease.)

4. The neighbourhood and community, as well as the dwelling itself, affect health. The health effects will be positive when the housing environment provides for physical security, enjoyable surroundings, constructive social involvement, and access to needed services (educational, health, social) and to commercial, cultural and recreational amenities. In disadvantaged communities, the conditions and the effects will be just the reverse.
5. Health depends also on how residents use their housing. The best of structures will not protect or promote health if its occupants do not use the facilities safely and for healthful purposes—or if they do not maintain housing in such a way as to defend it against health hazards.

6. The dwelling conditions of certain groups puts them at special health risk, leaving them especially vulnerable to multiple health hazards. Prominent among these groups are the residents of inner-city slums and of peri-urban shanty towns and squatter settlements, as well as displaced, mobile and refugee populations. Within these and all other groups, the health of children and women is of exceptional concern, because of their biological vulnerability and their greater exposure to hazards in the home. The aged, the chronically ill, and the disabled, in all countries, have special health needs with regard to their housing.

**Principles of health action**

Interventions to improve housing-health interactions need to recognize three social “facts of life”: that poverty is the major barrier to improved housing, so that the future of housing—like that of health—is generally bound up with a country’s social and economic development; that housing decisions are highly decentralised—not only in the fragmented responsibilities of many governmental agencies, but even more because most housing decisions are taken by builders and by families themselves; that the health aspects of housing are poorly understood and weakly represented in governmental, community and family decisions.

These facts lead us to five principles of health action.

1. Health advocacy in housing decisions should be strongly emphasised by health authorities, in alliance with other concerned groups, at all levels of administration and through multiple channels and media.

2. In the governmental sphere, health advocacy should be directed at a broad range of policies. Issues relevant to health go well beyond those bearing on housing itself.

3. To implement socially desirable policies, health advocacy should be intersectional in its orientation; moreover, it should be integrated into technical and social processes that countries use to develop and maintain community resources. Along with economic values, health considerations should be represented in the processes of development planning and management, urban and land use planning, and the setting of norms through legislation, regulations and standards for housing design and construction. A key process is situation monitoring and surveillance, not only to implement policies but also to provide information for planning future policies that will be relevant and responsive to human needs.

4. For policies and standards to be effective, extensive public and professional education is required to promote the provision and use of housing in ways that improve health status. Because so many individuals are engaged in the construction of housing—and virtually all people in its use and maintenance—educational efforts have to be extensive and pervasive.

5. Finally, and emphatically, community involvement at all levels should support self-help, neighbour-help and communal cooperative action in dealing with the needs and problems of the human habitat. Although every dwelling belongs in some sense to its occupants, the community too has an interest in the condition and use of the housing that shelters its members. The essential objective of community involvement is to help people improve their condition in tangible and direct ways, as well as in the intangibles of better health.

In support of the International Year of Shelter for the Homeless, WHO held a consultation in Geneva last month on “Housing—Implications for Health”. This article, based on a working paper discussed during the consultation, sums up current information on health-housing relationships as well as approaches to solving some of the problems.
Where eight share one room

How do migrants from the countryside to the city cope with the problem of homelessness? The writer cites the case of two slum-dwellers in the Ghanaian city of Kumasi

by Kwasi Adarkwa

For Ghana, the International Year of Shelter for the Homeless falls at a time when the number of homeless urban dwellers seems to have increased to an unprecedented level. In Kumasi, the country’s second largest city, for example, the existing stock of rooms in 1980 was estimated at about 220,700 but—with an average of three persons living in each room—it was estimated that as many as 20,000 additional rooms were needed. The situation has worsened since then. This shortfall compared to the need and demand is frightening, and as a result most migrants have adopted many innovative responses to cope with the situation. The stories of two residents of Kumasi demonstrate how some migrants manage to cope with their homelessness.

Adongo was born in Zuarungu in the Upper East Region of Ghana. Fifteen years after his birth his father died and he was left in the care of his uncle. He reared his uncle’s animals and worked on his farms in return for his daily bread. As he grew up he wanted to regain his independence and went to live in Kumasi some 18 years ago. He had hoped to get a job and earn enough money to buy cows for his marriage rites and accumulate some capital for a comfortable future.

When he got married, his wife came to join him in his uncle’s room in Bomso, although there were already eight people sharing it. Luckily for him, he found a semi-permanent job with the Bible College as a watchman. But he still earned only 2,000 cedis, and landlords at the time demanded an advance payment of between 10,000 and 15,000 cedis. He put much faith in the weekly lottery, but the more he staked the more he lost, and any winnings were only just enough to cover his past debts.

He became more and more frustrated, and lost all hope of ever raising the deposit; finally, he moved into a wooden structure near the Bible College which had originally been built for storing cement. Adongo has now been living in this wooden structure for the past ten years. He has three children and his wife is unemployed, so he is the sole breadwinner of the family. There are no toilet facilities and no electricity in the structure; he uses the toilets and baths at the nearby preparatory school. Since he has not yet achieved the ambition for which he left Zuarungu, he does not intend to go home in the near future. Since the structure he lives in is temporary he does not plan to make any improvements to it.

The vast majority of migrants like Adongo have similar stories to tell. They usually have no skills to enable them to easily find employment in the cities. Even when they do have a job, they are poorly paid; the high rents oblige them to find adequate and satisfactory accommodation, and so they tend to create spontaneous settlements outside of the existing institutional framework.

For Adongo, this hut for storing cement has been “home” for the past ten years.
Photo WHGlJ. Bonful
A new migrant normally joins some close relatives who have already settled in the city, and gets acquainted with city life as he roams round in search of a job. Close relatives continue to move in and share the accommodation—usually a small room. As the room gets more and more crowded, family life disintegrates and privacy is lost. As many as seven or eight persons may share a single room; the only top sleeping space.

Ayambilla tells his story of homelessness. “I have been living in Bantama in a structure made of cardboard and wood with my wife and five children. My income is only 5,000 cedis. Meanwhile to get a room to hire I need between 20,000 to 30,000 initial deposit which is well beyond my means. A year ago I was approached by a local gin retailer who wanted someone to watch over her gin store at night. In order to supplement my income I opted to sleep in this kiosk at night while my family live in the other dwelling.”

Since he put up his structure without authority, he has been constantly harassed by building inspectors of the Kumasi City Council who have threatened to demolish it. He doesn’t know how long he can continue to occupy this land.

When last year Ayambilla won the weekly lottery worth about 120,000 cedis, he decided to put up a simple dwelling to live in but this has not been easy either. He was told that the land was not for sale—but it could be released to him upon the payment of “drinks money” for a period of 50 years!

After paying one fee for temporary occupation of the land and another for help in obtaining registration and a building permit, he realised that he could not even afford to start his house. So he is still living in the kiosk until he can raise enough money again.

Complex planning and building regulations hinder people from starting their own homes. So the migrant simply builds for his own convenience, and does not go beyond the minimum required to keep shelter over his family’s head.

A migrant community in West Africa. Housing built by migrants seldom goes beyond the minimum required to keep shelter over the family’s head.

Photo WHO/ILO

Moonlight, when it comes, provides the only means of illumination, and a candle is seldom lit as he comes home tired and sleepy and only crawls onto the bamboo or straw mat which forms his bed.

Yet migrants such as Adongo and Ayambilla are the envy of other less fortunate ones, many of whom have no permanent sleeping places but wander from place to place. Others sleep in kiosks, lorry parks, disused lorries and uncompleted or abandoned buildings.

Migrants who work around the clock lose touch with their families. There is very little family guidance for their children and many of them become delinquents—a further consequence of homelessness. Since the migrants’ dwellings lack basic necessities like water, electricity, and toilet facilities, they may puncture pipelines to get water for domestic use and defaecate into nearby streams, rubbish dumps and gutters. The result is a steady increase in cases of such communicable diseases as cholera, gastro-enteritis and other water-related diseases among the migrants—the very people who have least access to primary health care.

The implications for national planning in many developing countries are obvious. More and more resources continue to go into curative measures of disease control, to the neglect of productive activities and other social services for the migrants. The increasing gap between housing needs and housing supply is aggravated, to a large extent, by factors such as the high cost of land and building materials, and rigid building and planning regulations. Even where governments have attempted to solve the housing problem by setting up housing institutions or production units, their functions are not always well-coordinated and such institutions are not always responsive to the needs of low-income city-dwellers.

In Ghana alone, it is estimated that an average of 1,000 to 1,200 houses must be constructed each year for the next 20 years if current housing needs are to be met. This is a huge task that can only be carried out by both private and public collaboration. The present focus of the International Year of Shelter for the Homeless is to draw the attention of all governments to the housing needs of their people. Solving the housing problem must start with the homeless. Governments and concerned institutions have to take the first step by relaxing over-rigid building and planning regulations so as to cater for their needs. Only then might we begin to see a downturn in the steadily rising total of city-dwellers without adequate roofs over their heads.
Learning how to control pests

Almost all slum settlements are heavily infested with insect and rodent pests, and these contribute to high rates of vector-borne diseases such as filariasis, dengue, leptospirosis, Chagas' disease and urban forms of malaria. Added to the threat of disease is the degraded quality of life as a result of the nuisance value of insects and rodents, the constant irritation of bites, and the depredation of food supplies. Recent studies show that people living in slum and squatter settlements spend a disproportionate amount of their meagre earnings on pesticides; clearly they themselves give high priority to ridding themselves of the harmful effects of such pests.

The lack of community sanitation services invariably goes hand in hand with pest infestation. While the local government’s role is essential in proper waste management (e.g. trucks for garbage collection), many pest and vector problems are the result of careless behaviour on the part of residents. It is therefore essential that people be informed and involved if community waste management is to be effective in the control of pests.

A current project run jointly by WHO and the UN Environment Programme (UNEP) seeks to train community workers so that they can offer practical information to individuals, families and community groups, who in turn can take action on their own behalf to improve their immediate environment and protect themselves and their children from insects and rodents in their homes and neighbourhoods.

A kit which forms part of the project provides practical guidance on environmental control measures that can be taken, including instructions for safe disposal of wastes, screening and rat-proofing of homes, and the use of covered water containers to prevent mosquitoes breeding there. Much of the information is presented in graphic form so that it is easy to understand and translation can be kept to a minimum. Particular attention is being given to the design of materials which can be cheaply reproduced by local communities.

The kit is a gleaming silver box containing a series of cards giving basic facts about nine household pests and two rodents—how to identify them, how to keep them down, and how to destroy them when they have already taken over.

Pests covered include Norway and roof rats which have travelled throughout the world with humans sharing their food and home. Two mosquitos are represented: *Aedes aegypti* famous in history as the yellow fever mosquito which also transmits dengue and *Culex quinquefasciatus* which transmits filariasis and encephalitis and is a pest mosquito. Both are highly domestic, breeding in habitats created largely by human ignorance and carelessness. The sandfly is there, the cockroach, the head and body louse, the housefly, bed bug and the bloodsucking bug that transmits Chagas' disease, a disease that improved housing and personal cleanliness could almost eliminate.

Known as CIIRC, for “Community Intervention for Insect and Rodent Control,” the kit was first distributed to a large number of national health authorities, experts and institutions involved in various ways with pest control. Work is now beginning on a revised version, and the final result is expected to be available by the end of this year. Its greatest application will be in training community workers of various kinds, particularly those engaged in primary health care or in housing improvement projects run by national agencies and non-governmental organizations.

A number of other guideline documents focused on environmental health aspects of housing and urban planning are also being prepared by WHO and UNEP for this year or early 1988. They are as follows:

- Upgrading environmental health conditions in low-income settlements: a community-based method for identifying needs and priorities;
- Urbanisation and its implications for child health: potential for action;
- Child survival in or near cities—interventions for a healthier environment;
- Indoor environment: a guidebook on the health aspects of air quality, thermal environment, light and noise;
- Access to live-saving services in urban areas;
- Urban surface water drainage in developing countries.

Grain sacks damaged beyond redemption by rats in a United Kingdom store.

Photo WHO/FAO
Two members of the Soviet Union's General and Municipal Hygiene Research Institute examine the medical criteria for the quality of city living, and suggest WHO might develop a special programme

by Yuri Gubernski and Nikolai Litvinov

Although towns and cities currently occupy only 0.3 per cent of the area of the globe, more than 40 per cent of the population of the planet is concentrated in them. In the United States 150 million people, or nearly two-thirds of the country's population, are town-dwellers, while the comparable figure for the Soviet Union is around 70 per cent of the population. According to UN data, about half the population of the planet will live in towns by the year 2000. Projections for 2025 are truly staggering: Mexico City with over 30 million, and both Lagos and Dhaka with some 25 million.

The concentration of the population in large towns, and especially in very large cities, has many negative effects on health and hygiene, and on town planning. The pace of life is intense, people are divorced from the natural environment, the space for recreation is limited, and it is hard to ensure wholesome air and an agreeable "micro-climate" in the home. All these factors adversely affect health.

The Soviet Union's policy is to restrict the growth of large towns and major cities. Our research shows that healthy living conditions are best found in small and medium-sized towns with no more than 300,000 residents. Town planning measures with this aim in view are undoubtedly promising. But creating the best possible urban environment is not just a matter of limiting city growth. It also involves creating outer-urban and rural agglomerations that depend on the large towns and cities.

Let us consider the medical criteria that can be applied to the quality of the urban and home environments and can form the basis of a hygienic approach to illness prevention. Town planning decisions should provide the most favourable conditions for the life, work and recreation of the residents. This can be done by setting aside areas for different purposes (industrial, residential, municipal and recreational), by siting these areas rationally in the town plan, and by making them as pleasant as possible.

The lack of in-town building land for residential purposes has resulted in recent years in a tendency to step up the number of storeys in buildings and to increase housing density. The green spaces are thus reduced.

Old housing comes down and new apartments rise in its place in a Soviet city.

Photo WHO/T. Farkas
in size, and there are fewer play-
grounds and recreation grounds
for children and adolescents, and
fewer sports grounds.

As the average life span lengthens,
the relative numbers of the elderly
increase. But in the new towns, there
is also an increase in the relative
size of the juvenile and adolescent
age groups. These are the very
population groups who make most
active use of “the space around the
houses”. Moreover, we know that
increasing housing and population
density leads to a higher sickness
rate from communicable diseases
among youngsters and adults. All
these factors point to a need for
stricter health-oriented regulations
on the size of the areas around
homes and on building density.

Present and future town planning
decisions have a key role to play in
the formation of the urban environ-
ment, so it is vital to determine a
scientific basis for setting standards
and recommending actions that will
avert any possible adverse effects
of human activity on the environ-
ment and on health.

The medical aspects of town
planning and of the formation of
the urban environment are insepar-
able from the health aspects of the
home, or of the “dwelling environ-
ment” as it has recently come to be
known in the specialist literature.
The concept of housing can no
longer be restricted to the mere
building of walls. As defined by
WHO, it goes further than the dwell-
ing and takes in not only the house
yard but also the “micro-district,”
the residential area district and all
the related services and facilities.

The “dwelling environment” is
necessarily artificial, since con-
scious human activity has a decisive
role in creating it, and today it has
to satisfy an increased number of
needs—activities in the home con-
ected with work, participation in
social life, study and self-education,
cultural development, socialising,
entertainment and recreation, in-
cluding keep-fit activity and sports.

The constantly changing nature of
the environment, its inner dynam-
ism, poses special problems and
may have positive or negative
effects on the environment.

Many of the health problems that
arise can only be effectively solved,
in our opinion, by adopting a com-
mon approach in which health pro-
fessionals, architects and town plan-
ners work together to study how
the environment of built-up areas is
formed, and how humans interact
with the home environment.

It is difficult to make a total
assessment of the quality of the
home environment that is required to ensure a healthy lifestyle because only a proportion of the demands made on the environment arise from the physiological needs of the human organism. Those needs form the basis, for example, for framing regulations and health legislation on permissible levels of air pollution or noise, or on insulation and the micro-climate. However, the sociological and health requirements that largely determine the lifestyle of cities and that, in the final analysis, have a decisive effect on human health are of a completely different nature.

So a comprehensive sociological and health-oriented assessment of the quality of the home environment is vital if we wish to contrast different areas within one town, to study how best to take timely steps to satisfy the demands of various population groups (adults, children, pensioners), to establish the severity of actual adverse effects on human health, to determine the relationship between positive and negative factors in the home environment and to measure the effect of that balance on the population's health.

The health and medical criteria of the quality of the city and the home environment are of particular importance because they are the basis for the hygienic approach to disease prevention—the approach that has particularly been chosen by the Soviet Union.

On the basis of the experience already gained, we would suggest that the conditions are now ripe for WHO to develop an international medical and biological programme for the prevention of the adverse effects of the urbanisation process on human health. Such a programme would make a significant contribution to WHO's efforts to solve the problems of the environment and human health—and would be especially appropriate as we reach the end of the twentieth century and enter the twenty-first.

WHO and IYSH: implications for health

As a contribution to the International Year of Shelter for the Homeless, WHO last month convened an inter-regional consultation in Geneva on "Housing—the implications for health". Participants, who included government officials experienced in health promotion, housing, town planning and community participation, reviewed the global situation of housing and health. They identified a set of public health principles for housing, and drew up recommendations on the most promising lines of action to be taken by governments, community groups and international agencies.

Who has also commissioned a series of case studies which examined national experiences in the fields of health and habitat. These studies have already been completed on Brazil, Ethiopia, Ghana, India, Peru, Philippines and Sri Lanka.

Another IYSH project calls for WHO to co-produce with the UN Environment Programme (UNEP) a set of information and guideline documents. A panel of technical experts identified among the most crucial aspects of housing and urban planning: urbanisation and its implications for child health, child survival in or near cities, upgrading the environment in low-income settlements, community intervention for insect and rodent control, the indoor environment, access to life-saving services in the cities, and surface water drainage in big towns.
Governments come and go... the community abides

by Jorge E. Hardoy

More than 15 years ago, two Latin American researchers related how 50 volunteer groups had offered their services and contributions to a squatter settlement outside Lima, Peru. Suddenly, the importance of collective action was realised.

Many such efforts deserve unconditional praise and support. They have helped millions of people to learn to read, find skills, improve their homes and health, and develop a higher capacity to run their organizations, with the result that pressure has been put on national and local governments to find adequate solutions to the more urgent problems. In many cases such efforts have provided openings to the world outside. I would like to believe that the number of violent expulsions of squatters had decreased in recent years as a result of a public awareness created by the activities of community groups working with nongovernmental organizations. Democratic governments accept these activities and often support their actions.

Moreover, I am sure that urban squatters are surprised by the numbers of people from national and international charities, religious groups, political parties, university extension programmes, international agencies and special public programmes that visit their settlements.
Nevertheless, hundreds of millions of people remain in dire straits. It is easy to forget that the governments of at least half of the Third World nations do not always fully represent the interests and aims of their people and that social movements are frequently unheeded. For various reasons, even elected governments hesitate when asked to decentralise decision-making and support local urban and rural community groups, whose vigour can broaden the base of participatory democracy.

There is a direct link between poverty and cholera, viral hepatitis, typhoid fever, schistosomiasis, diarrhoeal and parasitic diseases, tuberculosis, anaemia and many other diseases that are carried by water or related to poor sanitation, overcrowding and poor diet. It follows that much can be done through a better coordination of the programmes of agencies responsible for the improvement of health and the environment. Such levels of bureaucratic incompetence, duplication, wastefulness and sectoral bias have been reached that it is easy to despair.

"Poor housing is not given the attention it merits as a cause of disease. Low-cost rehabilitation, new building materials, the gradual removal of disease vectors, and better domestic hygiene—these all constitute a means to improve the community's environment and the community's health."

Professor Abel Wolman, Emeritus Professor at the Johns Hopkins University, Baltimore, USA, writing in World Health Forum, Vol. 7, No. 2, 1986.

With some exceptions, the United Nations system can hardly claim a better record. It has become too large, too complex, too slow, and too closely linked to governments, forgetting that possibly half of the urban areas in the Third World have been built by the people themselves, independently of official plans, norms and standards.

It is important to witness the pragmatism of communities. Much could be learnt from their actions. Governments come and go, representatives of international and public agencies explore the possibilities of starting projects, and countless well-intentioned people approach communities to exchange views about improvement programmes, but, at the end of the day, most programmes are selected and priorities adopted without consulting the people and their organizations. People in communities have a very clear idea of the type of financial and technical assistance they need, but officials often see things differently, and aid may be almost impossible to obtain.

Clearly, the worst environments cause immense suffering and may even make it impossible to earn an adequate income. Much could be done to improve them, but they will not disappear until extreme poverty is eradicated. This can no longer be seen as something to be achieved through international aid, nor even as the exclusive responsibility of Third World governments; rather it must be viewed as a task for the whole world.

To emerge from the present situation, it is essential to engage new people and bring about a radical change of attitudes. Attempts to improve environments of poverty have become bogged down because they are based on increasing the role of central governments, which too often are not inclined to work with the people. Central governments and international agencies have an important role to play, but do not have a monopoly of wisdom.

We should be more ready to work with community organizations and nongovernmental organizations. Loans of US $100,000 to a hundred community organizations will have a far greater impact on the living conditions of the poor than a $10 million loan to the government of the same country for conventional housing or a site and services project. And the chances of recovering the smaller loans will probably be higher. If nations and agencies take the view that this approach is out of the question, we may as well forget the environments of poverty and all the rhetoric about the importance of community organizations and non-governmental organizations in improving health.

J is not uncommon to find lower income groups who live in houses or shacks constructed on illegally occupied or sub-divided land, buying water of dubious quality from private vendors at 10 to 20 times the price per litre paid by middle or upper income groups in residential areas served by piped water. Similarly, it is not uncommon to find a heavy concentration of publicly financed health care services and facilities in large cities and yet the low income population in that city having little or no access to them."

In such circumstances, how can the health of the poor and under-served millions flourish? These are among the findings of a collaborative research programme which looked into the present and potential role of small and intermediate urban centres in the development process. The findings are presented by Jorge E. Hardoy and David Satterthwaite in their book "Small and Intermediate Urban Centres" published by Hodder and Stoughton, London, in association with the International Institute for Environment and Development, from whom it may be ordered (price £15 sterling). The book includes five regional studies—two in India and one each in Sudan, Argentina and Nigeria—of the way in which social, economic and political forces mould and shape urban systems, and thus contribute to, or constrain, the development of such small and medium-sized cities.

In commentaries on these studies, the two editors ask whether the existing concentration of urban-based activities in the largest city or cities (usually the capital) truly serves national, social and economic development goals. They quote other studies showing that the quality of health and education provided in the larger cities was "far superior to that in the smaller cities". And they conclude that "only through the urban system and its links with smaller settlements can governments increase the proportion of the population with access to health care, education, postage and telephones, and other public services".

WORLD HEALTH, July 1987
Popular technology beats schisto

by Paul Taylor

The traditional pit latrine smells, breeds flies and probably is the source of more disease in the community than it controls. Most people dislike it and will only use it in an emergency, or in areas of high population density where there is no natural vegetation for privacy. With deforestation a common problem, the nearest bush for cover is often on the bank of a stream—but washing in the stream after excreting increases the risk of schistosomiasis. This disease can only be transmitted when first someone contaminates the water with excreta, and secondly other people come in contact with the same water. Over 60 per cent of schoolchildren in some parts of Zimbabwe are infected, making schisto a very big health problem.

Better health and better social status are inextricably linked. This is why Zimbabwe has given very high priority to improving water supplies and sanitation, expected to have a wide-ranging impact on health and social development. The national policy for schistosomiasis control, as for many other diseases, envisages first improving water supply and sanitation in schistosomiasis-endemic areas. This approach will reduce the risk of long-term dependence on the frequent use of drugs, undesirable both financially and because there could be a catastrophic reversal should the drugs become scarce. Long-term schistosomiasis control is therefore based primarily on improvements in basic living conditions and changes in human behaviour.

The Ministry of Health's Health for all action plan estimates that only 15 per cent of the rural population today have adequate excreta disposal facilities and safe water. The estimated shortfall is some 750,000 latrines and 75,000 protected water-points. An optimum programme calls for the construction of 70,000 latrines and 7,000 water-points each year for 20 years.

The Blair latrine, developed at the Blair Research Laboratory, Harare, has a vent pipe fitted with a fly-screen of fibreglass or stainless steel; a variety of versions are now being built in Zimbabwe. The most important aspect of the sanitation and water programme has been sensitising the community and modifying technology, particularly the latrine, to suit local customs. Whenever the basic latrine is to be introduced into a new area or country, it should be evaluated with that community, even if it takes several years. The advantage of community responsibility for the construction of the latrines is that people's preferences become immediately apparent: they will not build what they do not want.

In contrast to the traditional pit latrine, the Blair latrine generally does not smell (if correctly constructed), actively assists in controlling flies in the community, and is often used as a bathroom. These features explain the overwhelming support for it in Zimbabwe.

A family building a latrine is given cement and a fly-screen to symbolise the importance the government attaches to latrines in the family setting. In return, the family digs the pit, collects the sand and gravel, makes the bricks and builds the toilet. The family's contribution—whether in cash to pay a builder or in labour to do the job itself—is considered by far the biggest, and it is the success of this community self-help which has
made the sanitation and water programme so dynamic. Communal latrines are not recommended, except at schools, shopping centres or bus stops, for example, because they are too difficult to maintain. People prefer to have their own latrines near to home.

The fact that very young children go with their mothers to water is the most likely reason for the high prevalence of schistosomiasis in children under six. It is important to provide not only good drinking water at a water-point, but facilities for all water-contact activities. In particular, this means washing-slabs, so that women can avoid the most common types of water-contact activity by themselves and their children. In one study in Zimbabwe, simple washing-slabs and washing-lines reduced the amount of water-contact at the nearby rivers by 80 per cent.

The water programme is much more difficult than the sanitation programme because water-points are entirely communal and the technology is much more complex. Water technologies for use and maintenance in villages include the hand-operated drilling rig, a simple bucket pump, two types of simple hand pump and an improved type of deep well pump. As with the sanitation programme, the emphasis is on community involvement and responsibility for maintenance. Every effort is made to see that the most reliable equipment is used, but it must be accepted that there will be breakdowns, so priority technologies are those which can be maintained in the village. The water-point must be repairable with the minimum of delay. It is better therefore to have a pump which is made, and can be maintained, with parts from within the country.

Although most large water supply schemes, including deep boreholes, tend to be set up with minimum community involvement, changes are coming rapidly. Nowadays, the community is often involved in digging pipelines and protecting completed boreholes. This last is particularly important: the boreholes of the past had muddy and thoroughly unpleasant surrounds, whereas the newer ones have an apron and soakaway as well as a washing-slab built by the community. The community is also involved in the simple maintenance of the borehole and pump, such as greasing and tightening of bolts.

Zimbabwe's favourite, the Blair latrine. It doesn't smell, keeps down flies and can even be used as a bathroom. Photo WHO/L. Taylor

The community's main contribution has been installing and maintaining simple hand pumps. This became possible when a local company developed the "Vonder Rig"—a robust yet simple-to-operate drilling rig that can be used by local people with very little supervision. Local people know the best sites for underground water and can be largely instrumental in deciding the location of their water-point. In contrast to human well-diggers, the rig's auger can get to below eight metres in less than a day, and may go down to over sixteen metres. If the drilling is unsuccessful, the rig can be moved to another site with only minor inconvenience. The disadvantage is that the auger can only cut through soil or decomposed rock, not hard rock or stony substrates.

The programme attracts enormous community support and enthusiasm largely due to the efforts of the village health workers and the community involvement and participation method. Water is a felt need, and the community have gained access to the technology that enables them to satisfy their own demands.

Although the schistosome's life-cycle can be attacked at several points, with the arrival of new, safe drugs many national control programmes have chosen to rely heavily on chemotherapy. This carries the risk of only short-term gains, as mentioned. If however, chemotherapy is linked with improvements in water and sanitation, then the foundation exists not only for a permanent reduction in the schistosomiasis problem but also for a much better overall health and socioeconomic status within the community.
**Dutch Donate WHO X-Ray Machines To Third World**

SIMAVI, a small private foundation in Holland, has installed 10 WHO-BRS X-ray machines in hospitals in Africa and Asia from money donated by the Dutch population.

The machines are now performing reliable X-ray diagnosis for patients in Benin, Cameroon, Ghana, Indonesia, Kenya, Tanzania, Uganda, Zambia and Zimbabwe. A Dutch manufacturer of the WHO-BRS, Philips Medical Systems, sold the machines to SIMAVI on specially favourable terms.

Philips also gave an eleventh machine free of charge. This machine will be used in an Amsterdam hospital for two years before going to a developing country. All 11 machines are being evaluated by SIMAVI for technical performance, training results, quality, economy, and impact on patients and the standard of care.

SIMAVI, which supports small medical projects in the Third World, celebrated its 60th anniversary in 1986, collecting money for its first five WHO-BRS machines as a special jubilee event. The other machines were funded from the foundation’s annual budgets of about US $1.3 million, which are made up of a yearly public collection, gifts from individual donors, and donations from small groups such as schoolchildren.

Eleven machines may seem only a drop in the bucket in comparison to world needs, say SIMAVI officials. But who considers that SIMAVI has made a highly significant contribution through its placement and evaluation of the machines, and its training activities for doctors and technicians.

**“Smash Hit for WHO”**

So proclaimed a two-column headline in the Times of London in describing the scene shown here that took place at WHO headquarters on 7 April, World Health Day.

“As the world’s conscience on health, we have decided to set a small example,” Dr Halfdan Mahler, WHO’s Director-General said just before smashing an ashtray. That symbolic ceremony signalled the start of a ban on smoking throughout WHO, including the cafeteria, and of two becoming—except for a staff room on the top floor—smoke-free. Earlier, a collection of ashtrays had been made and dumped into a wooden box for disposal.

In outlawing smoking, who cited mounting evidence, including a report from its International Agency for Research on Cancer, in Lyon, that declared “passive smoking” exposure to tobacco smoke—harmful to the health of non-smokers. A survey among WHO staff showed more than two-thirds do not smoke.

Of six regional offices, five—Alexandria, Brazzaville, Manila, New Delhi and Washington—have pledged themselves to smoke-free environments.

SIMAVI has also made a special point of trying to convince much larger Dutch relief organizations that the WHO-BRS should be their first choice. In March 1987, the foundation invited government officials, radiologists, radiographers, Dutch NGOs and the press to see the BRS unit for themselves, presented by the manufacturer in a standard shipping container and fully operational on solar power.

Dr Gerald Hanson, new chief of the Radiation Medicine unit at WHO headquarters, also talked to the group.
for the elderly goes towards cardiovascular diseases.

They "continue to impose a great burden to society in general and to the elderly population in particular," he concluded "despite some improvements in survivorship."

### NEWS BRIEFS

- **A 'Progress' Report in Human Reproduction.** This is the masthead of a quarterly newsletter just out, published by the WHO Special Programme of Research, Development & Research Training in Human Reproduction.

  In the first issue are reports on intrauterine devices, a vaginal ring developed by WHO, and trials of an anti-fertility vaccine.

  For a free subscription, clip this item and send to editor, Jitendra Khanna, at the WHO office listed above.

- **Finland: Twenty-five Years of Work.** The Finnish Council for Health Education, which comprises 74 health organizations, this year celebrates its 25th anniversary with a new drive to help people to help themselves in promoting health and preventing disease.

  Says its Executive Director, Dr Tuulikki Jussela, of the Council: "It aims at furthering healthy habits and supporting people in their efforts to influence the decision-making process for the improvement of health. During the last decade, the emphasis has moved from sickness prevention to health promotion." For further information, write: Finnish Council for Health Education, 150 Rodbrontinkatu 3 A 21 SF-00120, Helsinki.

- **Mental Health Success.** Created in Geneva, Switzerland, in 1983, the Association Success has already proved a success in breaking away from antiquated systems of conveying information to the public about mental health problems. The organization encourages exchange of information, fosters both public and private projects in the field of mental health, also covering alcoholism, drug dependence or depression, and supports all such efforts, professional or charitable.

  On Wisconsin. In dedicating a day to the goal of "Freedom from Cancer Pain", the State of Wisconsin has committed itself to a priority of WHO's cancer control programme—the relief of cancer pain.

  A proclamation issued 6 December 1986 by Governor Anthony S. Earl called upon his state's health organizations "to apply your knowledge, energy and creativity to improving cancer pain management in Wisconsin."

  In becoming the first U.S. state—and thus far the only one—to have taken this step, Wisconsin confirms its leadership role in the alleviation of cancer pain, those officials say.

- **People.** Appointed as Director, WHO Division of Noncommunicable Diseases, Dr Evgeny Shigian (USSR), formerly head of public health management and health statistics, Central Institute for Advanced Medical Studies, Moscow.

  He is now responsible for these units: diabetes, rheumatic diseases, cancer, cardiovascular diseases, smoking and health, occupational health, and oral health.

- **The Top 5,000.** The first edition of International Who's Who in Medicine, comprising some 5,000 men and women who have distinguished themselves in the medical sciences, has been published by the International Biographical Centre, Cambridge, UK. The 824-page reference work lists general practitioners, specialists, dentists and nurses, as well as pharmacologists, administrators, teaching staff, plus personalities in public health, and in research.

  To order write: Melrose Press Limited, 3 Regal Lane, Soham, CB7 5BA, UK, price £95, or US $150.

### IN THE NEXT ISSUE

Ten years ago—on 26 October 1977—the world’s last endemic case of smallpox was located in Somalia. The patient, 23-year-old hospital cook Ali Maow Maalin, made a complete recovery. The August-September issue of World Health marks this Tenth Anniversary with an overview of WHO’s unique achievement in eradicating smallpox and rid our planet of a millennia-long scourge.
A refugee settlement in southern Mexico lacks everything—including health care.

Photo WHO/UNHCR/M. Vanasseghem