THE WATER DECADE 1981–1990

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Ask someone from an affluent city suburb to characterise water and you would probably get a curious stare and something along the lines of "colourless, tasteless and abundant." But ask the same question to a villager in the Third World, and the answer might well provide a web of insights into a life of extraordinary hardship. For here water does not come from the ubiquitous tap. It has to be carried—usually by women—from a well or a river up to a mile away, several times a day. It is usually insufficient, and what there is may be so badly contaminated that it risks causing severe diarrhoea.

The fact that safe drinking water and its corollary, proper sanitation, are taken for granted in the more affluent countries but are a matter of life and death in the developing world has been monitored with increasing concern by WHO in recent years. This concern expressed itself in the UN agencies' own way of generating a sense of political urgency—the large international conference.

The Habitat Conference, held in Vancouver in 1976, stated as a goal —"fresh water for all by 1990." The UN Water Conference at Mar del Plata, Argentina, in 1977, made this more specific and designated the period 1981-1990 as the International Water Supply and Sanitation Decade, while 1978-1980 would be the years for collecting data and evaluating the dimension of the crisis.

Thirdly, the 1978 Alma-Ata Conference on Primary Health Care spelt out in broad outline some of the ways and means of incorporating the decade into a new two-part strategy for health: more "relevant" health services, and more emphasis on preventive health with all-round social and economic development.

Sanitation is closely related to drinking water indeed the rows of defecating children that are a common sight in much of the Third World are a more dramatic reminder of the problem than the absence of fresh water. Several studies have stressed that providing only safe drinking water or only facilities for disposing of excreta without the other half of the solution will be unlikely to lead to an improvement.

How serious is the crisis? WHO carries out regular surveys on the coverage of community water supply and excreta disposal services in the developing countries. The most recent, published in 1975, found some 1,230- million people without adequate water supply and 1,350 million without sanitation. More specifically, by the end of 1975 the total population of the developing world, excluding China, was roughly 2,000 million people; of these, 70 per cent lived in the rural areas and the rest in cities. While 57 per cent of the city population had access to community water through house connections, and another 21

per cent through public standposts, in the rural areas only 22 per cent had access. A total of 38 per cent of the Third World's population had access to safe drinking water.

In the cities, 25 per cent of the population had house connections to sewerage systems and an additional 50 per cent were served by household systems. In the rural areas, only l5 per cent had any access to sanitary latrines. Of the total number of people estimated to be without these most essential of services, more than 700 million are children—an important and alarming figure, particularly as 1979 has been designated International Year of the Child.

The first consequence of the lack is disease, WHO estimates that as much as 80 per cent of all disease in the world is associated with water. It can take several forms. Firstly, there are germs ingested through drinking contaminated water: these cause typhoid, gastro-enteritis and cholera. Then, communicable diseases such as scabies and trachoma, transmission of which is favoured by chronic water shortage or poor quality of water. Thirdly, .disease caused by parasites that inhabit water and burrow through the skin–like schistosomiasis, which is carried by snails, or dracunculinsis, carried by the guinea worm. Finally there are the carriers (vectors) of disease which breed in bodies of water. The most serious of these are mosquitos, responsible for the current alarming upsurge of malaria, and the flies which cause river blindness (onchocerciasis).

In round figures an astonishing number of people suffer from these water-related diseases at anyone time: 400 million with gastroenteritis, 160 million with malaria, 30 million with river blindness, 200 million with schistosomiasis.

This connection between the lack of clean, piped water and disease is now well established. In one case, in a cholera outbreak in the Mulange district of Malawi, the families who escaped the disease were those with piped water which, though untreated, was coming from upstream and was therefore uncontaminated. Those who suffered were those without piped water.

WHO surveys have noted another characteristic of fresh water - it comes with money. One 1970 survey found that in countries with a per capita income of less than US $ 110 a year, over 80 per cent of the population still lacked excreta disposal services and fresh water. For most countries with incomes within the range of $ 110 and $ 1000 the proportion is considerably smaller and ranges from 20 to 70 per cent.

Within countries, the disparity in services between urban and rural areas is often accounted for by the higher income of town dwellers, and their ability to apply greater political pressure in order to get services. Slums, however, stand out as an important exception, particularly since they are expected to expand dramatically in the next 14 years.

In a limited sense the situation is improving. WHO's 1975 mid-decade survey showed that the number of urban dwellers survived by drinking water had increased from 316 million in 1970 to 450 million in 1975 from 67 to 77 per cent. In rural areas the increase was from 182 million to 313 million—14 to 22 per cent. For excreta disposal, the increase was from 71 to 75 per cent in urban areas and from 11 to 15 per cent in the countryside. But this is still far below rate of increase called for by the International Decade. In

addition, the UN Fund for Population Activities (UNFPA) estimates that, irrespective of the success of family planning, the world's population is certain to double by the end of the century.

Furthermore, bare statistics can be falsely optimistic or may mask deficiencies. No water system can be entirely leak proof, even in an advanced industrialised country. Where water can leak contamination can enter. In a survey of 401 cities in the United States, two researchers found that in one out of ten cities, 25 per cent of the water were being lost. As with food lost during storage from rodents, water lost from leaky pipes in the developing world can amount to as much as 50 per cent.

The water supply is often intermittent. This is serious, because when the pressure falls off there is no resistance to the intrusion of pollutants from the outside. An estimated 27 per cent of the water supplies in Africa, south of the Sahera are intermittent and as much as 91 per cent of the water supplies in South-East Asia. Again many cities employ two systems of water—one safe for drinking and the other for washing streets and watering gardens. When they run side by side, there is a serious risk of contamination.

The 1981-1990 water decade concerns only safe drinking water and sanitation. It does not directly concern water management, which was discussed during the Desertification Conference held in

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Nairobi in 1977, nor the challenge of increasing and mobilizing water resources so as to meet food requirements. But clearly, all are interconnected, and it will be one of the aims of the decade to stress this.

Malnutrition and a lack of fresh water are inter-related. Malnutrition undermines the individual's resistance to such diseases as diarrhoea. Diarrhoea itself further reduces the intake on food and causes loss of body fluids, resulting in further malnutrition. Just as the need of food is greatest in the developing countries so is the need for water: in a dry climate the body requires, on average, up to twice as much water (5 litres) a day.

The Mar del Plata Conference in Argentina called for an unparalleled effort to be made by governments and the international community—a call that was reiterated by last year's WHO/UNICEF Conference on Primary Health Care held at Alma-Ata in Soviet Kazakhstan. In a joint report to the Conference, the heads of the two agencies noted that "Plentiful supplies of clean water help to decrease mortality and morbidity, in particular among infants and children, as well as making life easier for women. Countrywide plans are required to bring urban and rural water supplies within easy reach of the majority in the shortest possible time."

That conference ended with 22 recommendations and the Declaration of Alma-Ata. In broad terms, these said that the best form of preventive health care is social and economic development. They stressed the need for increased investment, and underlined that the form of technology and manpower to be involved must be relevant to the needs and resources of the countries involved.

Of course, this is more easily said than done, as with all conferences clarion-calls. What are the obstacles? In 1970, 88 countries were asked precisely this question in a WHO survey. The replies were illuminating; 48 gave lack of internal finances as the first problem; 10 cited the lack of external resources, 11 said they lacked a proper administrative structure, and said the chief concern was the lack of trained personnel. It is not hard to see why money looms so large. Between 1970 and 1975 the amount invested on water throughout the world were on average $ 67 per person in urban areas and $ 17 in rural areas.

The World Bank and WHO reported to the Mar del Plata Conference that $ 1,40,000 million would be needed to reach the target of "clean water for all by 1990." For this to be achieved, investment on water supplies in urban areas would have to be increased one and-a-half times and in rural areas four times, while eight times as much would have to be spent on sanitation.

Where will it come from? On past performance, from the countries themselves. External aid from donors in the industrialised world has been falling behind the two targets set by the UN: one per cent of all net flows, or 0.7 per cent of the GNP for official development assistance. In 1970, net aid from the 17 Western member-countries of the Development Assistance Committee (DAC) was $ 17,400 million instead of the target of $ 22,000 million. Of the money invested on water in 1971, only 12 per cent in urban areas was met by aid and nine per cent in rural areas. In the same year, $ 710 million of aid went to community water and $ 142million to sanitation. But even these figures disguise the fact that more than half the aid went

to Latin America, and only two per cent to South-East Asia, where the need is even greater.

It is not, of course, simply a question of money. It is a question of political will and priorities. The Alma-Ata Declaration talks of the need to involve the community—almost a catch—phrase by now, but essential if the water decade targets are to be met. Community development starts with the family. Since women are usually the carriers of water, and often control the family's, hygiene and health, they are the first obvious target. In Kenya, for instance, the Women's Associations are actively promoting basic family health and sanitation. Third World mothers cope marvelously well with their family health in trying circumstances, but they probably need to be told about the benefits of fresh water and sanitation. They may not be aware that diarrhoea (which, according to the 1975 World Bank report, was the leading identifiable cause of death in Paraguay, Guatemala and El Salvador) can be cured by administering a simple sugar and salt solution to replace lost body fluids, and that there is no need for expensive drip treatment in hospitals. Again, people may have to be encouraged to act together to construct a simple tube well pump, since the only pumps in operation may have been owned by rich farmers.

"Community development" implies appropriate tools or technology—another catchphrase. But the acid test of technology is whether villagers will in fact use it. Well-meaning aid programmes have introduced latrines into villages only to find that they are not used, because they are malodorous, have to be emptied are uncomfortable to use, and draw public attention to a bodily function which many prefer to perform at night.

The British development agency OXFAM has designated a latrine currently in use in Viet Nam as one of the best available in the Third World. It cuts down disease, and also turns human excreta into organic manure, producing some 6,00,000 tons a year. After 45 days, when the excreta have been rendered bacteria free, it can be removed from a hole in the back of the latrine. In the Republic of Korea, human excreta are turned into methane gas, for use in 50,000 rural households.

One reason why the community should be involved from the earliest time in decision making is the problem of maintaining pumps and latrines. These services, in fact, again raise the dilemma—who should pay? WHO's policy is in general that the communities should share the costs, partly in order to increase their sense of responsibility. And yet, having the poorest pay for the services which should ideally be free seems to be a contradiction.

This problem had to be overcome in one of UNICEF's most successful programmes—to install tube wells in Bangladesh a country where more than 60 per cent of all disease is caused by polluted water. Bangladesh is peculiarly vulnerable. It is washed by three huge rivers and in the monsoons 70 per cent of the country lies under water. Too much water means flooding, yet too little means drought. And because the country is so flat, there is no possibility of preserving the water for use in the dry season.

Changing Priorities

In most countries at the most senior level the government–it is not so much a question of the amount of money as a question of priorities. Even though the benefits stemming from having a healthy population are now well established, it is as difficult

for a government to direct sanitation and water services towards the poor as it is to change health priorities from city-based hospitals to rural health centres. Their difficulties may increase if government economists regard such services as "pouring good money after bad", and suspect that "community development" is another way of saying they will have no further control over how the money is used.

Then there are the problems of administration. Whose responsibility is water—that of the health ministry or of agriculture, or of a separate department? If water is going to be shared by several ministries, there will clearly be problems of coordination. But if it is going to be under a separate administration, other concerned ministries may well argue that they should no longer be involved. Yet most countries which have rated water and sanitation a priority are setting up separate administrative systems.

One fact stands out: where governments have committed themselves to the objectives of the Water Decade, particularly with the active collaboration of village communities, improvements have been substantial. In the Domicican Republic in 1961, 43 per cent of the urban, and 83 per cent of the rural population lacked safe drinking water. The government set up a National Drinking Water Institute and the situation began to improve. "There was no single factor involved," says one WHO official, "It had a proper institutional structure; proper training of staff; built-in flexibility: cooperation between ministries and coordination of resources; tight technical supervision; dynamic community organisation."

Similarly, Brazil has created a national sanitation plan and the National Housing Bank has been given the task of providing funds. The target is to provide 80 per cent of running water for the urban population by 1980.

In the old crowded streets of Ibadan, Nigeria, a "family group" of between 100 and 1,000 people makes an application to the Ibadan sewerage authority, and undertakes to provide land, labour, and running costs. The government then constructs "conform stations", with one toilet and shower for every 25 people.

But governments by themselves can not be expected to carry the burden of increased investment. Part of the contribution to the Water Decade from international agencies will take the form of greater coordination. With WHO and the UN Development Programme taking the lead, collaborative action will involve the World Bank, UNICEF, the Food and Agriculture Organisation, the UN and the ILO. This in turn will seek to mobilise external cooperation for the Decade from bilateral and multilateral agencies. Within each country the UNDP resident representative will coordinate the needs. Each agency will continue to perform its special function, but the net results will be a much greater degree of coordination.

One other important form of cooperation was recommended by the Mar del Plata Conference, and that was regional cooperation. This will take the form of strengthening the water commissions in the various regional UN economic commissions, and also making greater efforts to share common water.

Whether such sharing actually happens could determine whether governments have the will to

make the Water Decade a reality. Countries downstream argue that they are at the mercy of those upstream, which can turn valuable water on and off at will (by closing dam sluices), or may cause pollution and contamination which is beyond their control. Countries upstream argue that they cannot be constrained by considerations outside their own frontiers. Agreements such as that between Bangladesh and India over the Farraka Dam across the Ganges or between Brazil and Paraguay over the Parana River, suggest that international cooperation is indeed possible.

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