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WATER SUPPLY IN DEVELOPING AFRICAN COUNTRIES
(Note prepared by WHO)

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WATER SUPPLY IN DEVELOPING AFRICAN COUNTRIES

The provision of piped water for human consumption and industrial use, and the protection of water resources against pollution by water-carried wastes from households or enterprises are problems fundamentally related to health and social well-being of a people and to their economic development. If proof is required there are well-known examples from the past to prove this statement, but evidence of such a basic relationship is observed in most countries of to-day's world, whether they are developed or in the process of development.

Piped water from safe and adequate sources is vital, in particular for developing countries. Development of a country must fail if community water supply is neglected. As irrigation of the land is to agricultural development in most parts of the world, so piped water is an essential and basic factor in industrial development and public health.

Yet only one-third of the African developing countries' urban population and certainly less than 10% of their total rural and urban populations enjoy the benefits of water service. Many of them have only one water faucet on the premises in which they live. Another one-third of this urban population and probably as many as 70% of the total have

no access to piped water at all. They draw drinking water from unsafe sources, quite often contaminated by disease transmitting organisms, or have to buy it from street vendors at prices which limit consumption to amounts below the minimum for adequate living. The last third of the urban population in developing countries and perhaps 15 to 20% of the total population obtain drinking water from public outlets.

In terms of economy, the best because it is the cheapest, and most productive way to supply this vital element for human consumption and industrial processes is essentially through pipes extending from protected and safe sources to the premises or the manufacturing plant. A single one-inch pipe may deliver water enough to satisfy the needs of 500 people, even if the daily per capita consumption is fairly high. The costs of such supplies are not unfeasibly high. Most people in the world can afford such service once they realize that sickness costs money too, and there is a price for health and well-being. There is recognition in most of the countries under consideration that the construction of new and the extension and modification of existing, piped water supplies is basic to the improvement of both health and well-being. Great efforts were made during past decades, and governments are allocating significant amounts of public money to improve present conditions. However, in spite of all the recent vigour, the gap between existing facilities and needs is widening, and population growth outstrips the construction of new water services. This is indeed an alarming situation.

Because of the conflicting interests involved and the tremendous amount of money needed, water supply involves significant political, legal, administrative and economic aspects also. Effective measures

depend on the establishment of sound principles in all these fields, as well as on satisfactory ways to raise the necessary funds.

A governmental policy relating to water supply and water protection is one of the prime essentials for progress in both of these fields in most developing countries. Such a policy should identify water supply and water protection as a matter of urgency and it should make them a major part of governmental programmes for national development. It should decide on the priority of water supply and water protection in the general development of water resources, should contain basic recommendations about the necessary legislation, including the allocation of funds, and should establish principles regarding responsibilities for waterworks operation and administrative decisions. Experience in many developing countries proves that the establishment of a governmental policy not only speeds the preparatory work in administration, but creates confidence and public understanding. Without governmental policy, valuable time may be lost due to lack in administrative efficiency and public response.

Equally important may be revision of existing (sometimes very old) legislation and the establishment of modern water laws. Water rights must be settled, priorities for water supplies and water protection with relation to other uses of water must be set, licensing requirements must be prescribed and administrative procedures outlined, responsibilities allocated, and a system of government supervision of both water supply and water protection activities established. In many countries the existing water laws are outmoded and hamper or even obstruct practical measures. Such laws should be modified according to local conditions in the light of to-day's socio-economic problems. Where no applicable legislation exists,

uncertainty may prevail and prevent positive action. In such cases speedy legislation becomes a matter of utmost urgency.

Organizational steps must be taken by governments to adapt governmental and administrative structure to legislature and policy (according to experience). Establishment of a central governmental authority charged with matters of water supply and water protection at ministerial level seems indispensable in many developing countries. This authority should, inter alia, be responsible for policy making, fact finding, development of standards, relating water supply and water protection to long-range planning of water resources development, master planning, administration of law, eventually planning supervision, and allocation of funds. In some countries the Ministry of Public Works may be the most suitable agency to which a central water authority would be attached, but in other countries different ministries may be more suited to this particular responsibility. If constitutions provide for decentralized authorities in the field of water supply and water protection, similar agencies should be set up at state or provincial level with, however, at least a general central authority being established to be responsible for coordination in matters of general interest and for the allocation of central funds. The central Ministry of Health should, in any case, be responsible for setting standards for design, water quality and water quality supervision. It should also conduct or at least follow up supervision of plant operation as far as water quality and other matters related to health aspects are concerned.

Whenever the country's constitution and the effective water laws allow, local authorities or private bodies should receive responsibility to construct and operate facilities for water supply and water protection under

the supervision of the governmental authorities. Experience in many countries suggests strongly that an independent water board be established by the local authority which functions through a general manager under its direction. The general manager should, inter alia, be responsible for submitting budget plans to the board and collecting water rates. There may be differences in principles of financing facilities for water supply and water protection in the different countries according to the type of national economy. Whatever the differences are, however, successfully operated water supplies and water protection facilities must have regular revenues, whether from water charges, general taxes or other sources.

Although economic and administrative steps are often believed to be the most significant measures to improve water supply and water pollution conditions, training of personnel is another major field requiring more attention and action. In a number of cases water supply schemes completed at considerable cost are not operated, supervised or managed properly due to lack of trained personnel. In very few of the countries concerned do adequate facilities for training and research exist. Any programme, national or international, designed to improve water supply and water pollution conditions, should therefore include appropriate measures at various levels (i.e. universities, administration, waterworks) to provide training courses and research.