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INTERNATIONAL DRINKING WATER SUPPLY AND SANITATION DECADE: THE SITUATION IN LATIN AMERICA ON THE EVE OF THE DECADE AND THE PROSPECTS FOR THE FUTURE

A joint report prepared with the Pan-American Health Organization

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/PREFACE

PREFACE

This report has been prepared jointly by the secretariat and the Pan-American Health Organization for presentation to the Economic Commission for Latin America (CEPAL) on the occasion of the regional launching of the International Drinking Water Supply and Sanitation Decade, 1981-1990. It represents part of the Commission's support to the countries' activities in relation to the Decade, as mandated in Economic and Social Council resolution 1979/31.

The report contains a short background discussion on the origins and objectives of the Decade, a review of the recent evolution of the water supply and sanitation sector in the Americas, prospects for the development of the sector during the decade including a brief analysis of limiting factors and implications for future development, and finally, possible strategies for both national and regional action in support of the objectives pursued.

I. INTRODUCTION

1. The designation of the 1980s as the International Drinking Water Supply and Sanitation Decade reflects a general concern for improvement in water supply and sanitation services as a fundamental right of all and a basic necessity for the support of life.

2. In Latin America and the Caribbean, diarrheal diseases alone account for almost 200 000 deaths each year, and the number is much greater if account is taken of typhoid fever, hepatitis and schistosomiasis. Sickness due to water-related diseases - trachoma, malaria, enteric and parasitic diseases - can spell disaster for individuals, families, communities and entire nations. A vicious circle evolves as those unable to work lose income, levels of family nutrition drop, personal growth is stunted, and susceptibility to diseases and death increases. The repercussions on the gross national product are devastating. In order to interrupt this cycle, the efforts begun in the past to provide people with safe - which also implies adequate - water supplies and sanitation will have to be intensified.

3. At the special one-day meeting of the General Assembly held to launch formally the International Drinking Water Supply and Sanitation Decade for the period 1981-1990, the Assembly adopted resolution 35/18 "Proclamation of the International Drinking Water Supply and Sanitation Decade" (see Annex 1), which, inter alia:

> "1. Proclaims the period 1981-1990 as the International Drinking Water Supply and Sanitation Decade, during which Member States will assume a commitment to bring about a substantial improvement in the standards and levels of services in drinking water supply and sanitation by the year 1990;

/2. Calls

2. Calls upon Governments which have not yet done so to develop the necessary policies and set the targets to this end, to take all appropriate steps for their implementation, to set sufficiently high priorities for the activities concerned and to mobilize adequate resources to achieve their targets for the Decade;

3. Urges Governments to strengthen, as appropriate, their institutional frameworks for carrying out these activities, to mobilize the necessary technical expertise at all levels and, in general to heighten popular awareness and support through education and public participation programmes;

4. Calls upon Governments, organs, organizations and bodies of the United Nations system and other intergovernmental and non-governmental organizations concerned to continue and, if possible, to increase their technical and financial co-operation with developing countries in order to enable them to attain the targets they have set, and to continue also their efforts to co-ordinate their activities so as to maximize the impact of their assistance to developing countries;

5. Calls upon the regional commissions to review periodically, on the basis of national reports, the progress being made by the Governments of their respective regions in establishing national targets and carrying out programmes to attain those targets".

II. THE WATER SUPPLY AND SANITATION SITUATION IN LATIN AMERICA AND THE CARIBBEAN

4. In Latin America and the Caribbean, the Decade goal of bringing drinking water and sanitation to as many people as possible by 1990 translates into the provision of services for a total of some 338 million urban dwellers and 147 million rural inhabitants. Today, of the urban and rural populations, only 70% and 33% respectively, have access to piped water supplies, while only 42% and an estimated 3% benefit from adequate sewerage and excreta disposal facilities. In other words, achievement of the targets of the Decade will require that services be extended to those presently underserved: water supplies must be brought to approximately 230 million urban and rural inhabitants, sewerage services to 220 million urban dwellers, and excreta disposal facilities to 130 million rural inhabitants.

5. Provision of those services represents a mammoth undertaking: the additional people to be served are more than double those served at present, while in the case of excreta disposal systems the added individuals to be incorporated are more than three times those covered today. Bridging the gap between present coverage and target coverage will require special emphasis on the squatter settlements that gird large cities, on small communities, and on dispersed rural groups.

6. While the task ahead is a large one, the example of the past offers some assurance that progress can be made in extending service coverage despite rapid population and urbanization growth. The governments of the Americas set targets for the extension of water supply and sanitation in

/the Charter

the Charter of Punta del Este (1961) and the Ten-Year Health Plan (1972). While actual gains have in general fallen far short of established goals, noticeable increases have nevertheless been registered in the percentages of the population provided with access to water supply, sewerage, and excreta disposal facilities, as shown below:

	1961		1971		1979	
	Water	Sewerage	Water	Sewerage	Water	Sewerage
Urban	60	28	78	40	70	42
Rural	8	2	24	2	33	3

III. ACTION AREAS FOR NATIONAL EFFORTS TO ACHIEVE THE GOALS OF THE DECADE

7. The provision of clean water and adequate sanitation to as many people as possible over the course of the next ten years is a goal closely linked with the principles of primary health care and community development, and its achievement could well serve as the spearhead for the campaign to attain "health for all by the year 2000". Transformation of the set goal into an actual accomplishment will require that governments make the necessary political commitment and apply appropriate action strategies in the areas of institutional development, appropriate technology, human resources, and financing.

Political commitment

8. The Decade will succeed only if individual countries take the initiative, demonstrate the will to act, and mobilize full public support at all levels. Each government must set its own realistic targets, focusing attention on the unserved low-income rural and urban-fringe groups. Priority should be given to the achievement of those targets within national policies and plans for overall social and economic development, and hence countrywide water and sanitation strategies should be carried out.

9. Application of those strategies, in turn, will require that governments: significantly reorient existing national budget allocations for water and sanitation; institute mechanisms to assess and develop community-based human and material resources; develop national financing mechanisms; identify and prepare projects to attract external financing; improve operation and maintenance to ensure safe water quality and avoid under-utilization of completed facilities; revise statistical systems and legal structures so as to improve the planning, administration, and evaluation of national programmes; improve co-ordination among different agencies in the sector as well as among sectors; and establish a national focal point for information collection and dissemination.

/Institutional resources

Institutional resources and management

10. Several countries have basic institutional infrastructures endowed with the kind of management competence required to meet Decade goals, particularly in urban areas. In other countries, however, efforts need to be directed towards increasing the absorptive capacity of the sector through institution-building. Increased funding of projects is not enough: the institutions that execute projects have to be strengthened and adapted to obtain the best possible performance in carrying out water supply and sanitation sector policies.

11. Institutional development has not kept pace in the past with the population explosion and rural-to-urban migration and has been hampered within the sector by the deficiency or absence of policies for the planning and co-ordination of programmes. This problem has been compounded by the lack of co-ordination between the multiplicity of governmental and private institutions operating in the sector in many countries.

12. Institutional weaknesses usually become evident after systems are already operational, when it is realized that the agency responsible for system operation and maintenance cannot fully achieve an investment's potential benefits. The construction of physical facilities is only a first phase in institutional development: an infrastructure must be created and maintained to operate those facilities effectively. A system that does not work or that works poorly is of no benefit and wastes valuable resources.

13. Efforts should focus on strengthening national, regional, and local water supply and sanitation agencies to perform effectively and to cope with the expansion of activities and services, including specialized services involved in the development of management practices, such as financing, accounting, billing and collecting, data management, communications, public relations, personnel, training, and others.

14. Where a number of institutions are active in the sector, as is typically the case in urban areas, improvements should focus on co-ordination, especially with those responsible for national development policies and plans, and on the clear distribution of responsibilities. In order that the different institutions may perform their particular duties, financial and human resources must be provided and their effective utilization assured.

15. The development of permanent community water and sanitation institutions, particularly in rural areas, must be a high-priority objective. These institutions will vary widely, depending on the size of the services as well as social and political conditions. Notwithstanding, certain basic functions and responsibilities go hand in hand with local organization: stimulating and mobilizing local community participation, including labour, in the construction phase; collecting service fees from consumers; maintaining and repairing equipment and facilities; participating in planning future service extension consistent with community needs and capacity; and

/co-operating with

co-operating with other local socio-economic development efforts. To be effective, local management requires the support of an infrastructure that can provide technical guidance. In addition, it should develop and maintain liaison and co-operation arrangements with neighbouring community organizations. These contacts can be very helpful in handling emergencies as well as other problems.

Appropriate technology

16. In the past, there has been a tendency to adopt technologies from the industrially advanced countries, in the absence of established, available local options. Though advanced technologies may be appropriate in some circumstances, they may lack the "social" focus that attracts the community, whose participation is essential in village, rural, and slum programmes. Moreover, inappropriate choices in technology have often resulted in deficient and costly project construction and operation with low service levels. Source development, transmission and distribution of water may not keep pace with one another. Intermittent supplies, low pressures, and ill-served or totally unserved areas soon manifest themselves. Piped supplies to rural areas are often rendered expensive due to inappropriate choices in design criteria, treatment processes, equipment and operational techniques. Even in simpler rural systems, the supply to consumers is often jeopardized by the wrong choice of disinfection equipment. Adherence to the principles of "appropriate technology" - that which suits the size, nature, culture, history, and capacity of the local community - will produce more economical, yet acceptable designs.

17. In urban areas, high technology may be most suitable. In smaller, dispersed communities, cost-effective and simple technology should be applied which can utilize local materials and equipment, employ local manpower, and develop local industry. Planners should take account of the relationship between design standards and consumer willingness to support services. Co-ordination of design and service needs, and the consequent adoption of appropriate local technology, should ease operation and maintenance problems.

18. With regard to actual service technologies, a range of possibilities exists. For water supply, various alternatives for different types of service can be applied: from standpipes or hand pumps to complete coverage with individual house connexions to piped systems. For safe excreta disposal, similar choices are available: from simple pit latrines to complex waterborne facilities. In fact, installation of latrines complemented with health education provides an especially cost-efficient, safe alternative in less populated rural areas where sewerage systems are virtually absent. Understandably, appropriate technology will change with development, and simple services that may be suitable for the time being will have to be replaced with more sophisticated systems as necessary in the future.

/Human resources

Human resources

19. Lack of sufficient trained manpower constitutes a potential threat to the achievement of the Decade goals. Shortages of skilled manpower have contributed to poor planning, project execution, and operation and maintenance in the past. Even where the numbers of staff are sufficient, improvement of their skills could lead to greater productivity. The skills of staff already at work need to be upgraded through continuing education.

20. The training efforts of previous years have created a nucleus of technically qualified people. A broader multiplier effect is required, however. This means organization of self-sustaining training systems in each country or group of countries and utilization of existing institutions and technical expertise. Through these national facilities it should also be possible to develop suitable performance-oriented training and job manuals and other instructional materials, as well as training courses.

21. Governments should seek funds, particularly among donors, in advance of investment in order to train people and build up a training infrastructure, since the absorptive capacity is essential to protect the investment made in training and guarantee its desired impact. Governments should encourage the provision of external assistance on a programme and on a project basis, reoriented to support self-sustaining development in which the training of manpower at all levels is an integral part.

Financial resources

22. Achievement by the countries of the region of the goals of the Decade will require considerable capital investment, even though in the past two decades the countries of Latin America have made large investments to extend water and sanitation service coverage. In the 1970s the level of investment reached over US$ 1 000 million a year.

23. The costs of water and sanitation services vary considerably, depending on the countries and the type of service supplied. WHO has estimated (1977) the average per capita costs of the different services for urban areas as follows: residence-connected water supply, US$ 124; public source water supply (standpipes), US$ 48; waterborne sewerage service, US$ 112 and domestic waste disposal system, US$ 35. In rural areas, the estimated per capita cost of water supply is US$ 26 and that of latrines, US$ 5.

24. Depending on the type of technology adopted, and other factors, the projected investments required to finance water and excreta disposal services for the Decade will come to between US$ 2 000 million and over US$ 4 000 million per year.1/ The greatest increases in investment will be required for

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1/ See CEPAL, "The financial demands of the International Drinking Water Supply and Sanitation Decade in Latin America", E/CEPAL/G.1164.

/urban sewerage

urban sewerage and rural water supply and sanitation. To this must be added the resources required for operation and maintenance of existing and new systems.

25. In the past, finance for investments in water supply and sanitation has come from four main sources: external borrowing or aid, general taxation, income of water supply and sanitation agencies, and the users' own resources. The importance of each of these contributing sources has varied over time, geographically and with the technology employed. In the future, investment in the sector will probably continue to flow from these four main sources and their importance will continue to vary according to the specific policies adopted towards the provision of services.

26. In estimating the future contributions to be expected from these different sources, the following must be taken into account.

(i) Government allocations come from regular or extraordinary budgets of the country, province, or municipality. From these budgets, each sector is allotted a certain proportion which it may be difficult to increase in accordance with the needs of the Decade.

(ii) User contributions to financing of investments during the Decade are likely to be heavily concentrated amongst those groups of the population most deprived of adequate service, namely, the rural dispersed population. In areas of denser population, both rural and urban, which are suitable for centralized piped systems, any direct user contribution will most likely be restricted to the payment of connexion charges, although direct beneficiary participation in the construction and operation of systems should be sought where savings on investment costs will result.

(iii) The contribution to the financing of water supply and sewerage systems derived from the income of companies providing these services is dependent on the tariffs charged. In the past, the proportion of financial resources for extension of the systems generated in this way has been both small and variable. Potentially, however, tariffs can be a significant source of income, and policies should be adopted to improve the general financial self-sufficiency of the sector.

(iv) External loans, largely provided by the World Bank and the Inter-American Development Bank, have assisted in the financing of water supply and sewerage investments in the past. The contribution of such external financing to the total financing of water supply and sanitation has been about 10% in the past, although in recent years it has declined in Latin America to below this proportion. The overall contribution to sector financing from external sources can possibly be maintained if international banks give the sector priority. Perhaps more important, however, is the distribution of loans. The pattern of financing of the past, heavily weighted in favour of a few of the larger countries, will have to change if the goals of the Decade are to be met in the smaller and less developed countries of the region.

/IV. A

IV. A REGIONAL STRATEGY FOR THE DECADE

27. If by 1990 water and sanitation services are to be provided universally, international organizations, regional offices and commissions, and national governments will have to organize radical, swift and massive activities. The challenge is a major one, and can only be met by the co-ordination of efforts from the most local to the most global levels.

28. At the global level a Steering Committee for Co-operative Action has been established under the chairmanship of the Deputy Administrator of UNDP. The agencies represented on this Committee are the World Bank, WHO, ILO, UNICEF, FAO and the United Nations. The Committee has identified the following major areas in which to co-ordinate activities:

(i) Studies of low-cost alternatives in the field of water supply and sanitation;
(ii) A system to provide information for potential donors on developing countries' plans and projects and for countries on donor aid availability and criteria;
(iii) A clearing house function for interchange of information on Decade activities;
(iv) Support activities for national planning;
(v) A public relations programme to develop and promote Decade activities.

29. The responsibilities at the regional level for the co-ordination of water and sanitation sector development activities within the United Nations system in support of the Decade are being shared by the Economic Commission for Latin America and the Pan-American Health Organization, but other international agencies do have important activities in water supply and sanitation in the region.

30. In general, the role of international agencies is, on the one hand, to encourage greater technical support and increased external funding through bilateral agencies and financial institutions and, on the other hand, to co-operate with the countries in the co-ordination of sector activities at the national level, to secure increased internal financial contributions for those activities, to formulate and conduct projects, with priority being assigned to services for the urban and rural poor, to encourage community participation and technical co-operation among developing countries, and to ensure effective utilization of resources through the exchange and dissemination of information regarding programmes and resources.

31. The Pan-American Health Organization's water supply and sanitation programme is oriented towards medium- and long-term development within the framework of the Decade. Together with the World Bank, PAHO staff have conducted sector surveys to determine the situation and needs in many countries of the region and have made efforts to strengthen national capacities for identifying and developing projects. The programme stresses improved operation and maintenance to reduce losses, attain better quality,

and ensure

and ensure continuous service. The Pan American Center for Sanitary Engineering and the Environmental Sciences in Lima, with support from Peru and the Inter-American Development Bank, is developing systems of providing training in the operation and maintenance of water supply and sanitation services. In the Caribbean and parts of Central America, basic sanitation measures are being integrated with primary health care and included in community participation. PAHO's environmental health textbook programme will focus on providing training and educational materials.

32. Acting as executing agency for an increasing number of international and bilateral agencies, PAHO is developing innovative projects, many of which - such as the Caribbean Basin Water Management project - are of a subregional nature. It is working to build up, through horizontal technical co-operation, the design of locally appropriate technologies and related applied research, including the exploration of alternative energy sources to support water supply and sanitation programmes.

33. The Economic Commission for Latin America has generally co-operated with the Pan-American Health Organization in supporting preparations for the Decade at the regional level, as well as developing its own activities. These have been directed at a study of the needs and possible sources of finance for the investments required to achieve the goals of the Decade and the organization of meetings of representatives of national and international agencies to review strategies in specific aspects of water supply and sanitation. The general objective of the meetings is to help governments to establish avenues of co-operation in the financial, economic and social aspects of drinking water and sanitation within Latin America. This co-operation will be founded on the existing capacity and experience of the various national drinking water and sanitation bodies in the aspects referred to. The specific objective will be to offer an opportunity to:

(a) Identify avenues of horizontal co-operation in financial, economic and social aspects relating to the sector; and
(b) Lay the ground for the initiation of co-operation activities along the lines agreed.

Two meetings have been scheduled, one to discuss the needs of South American countries, and the other covering the remaining countries of Latin America and the Caribbean. In addition the Commission has aided the co-ordination of activities related to the Decade through the Inter-Secretariat Group for Water Resources in Latin America.

34. Whatever the arrangements and activities at the international level, the Decade will only succeed if individual countries take the initiative and demonstrate the will to act. It is the governments themselves that must assign priority to water supply and sanitation goals. Many countries of the region have already established national co-ordinating committees to advise on all matters relating to the Decade, define national goals, prepare plans to meet the goals and prepare and co-ordinate projects.

/35. These

35. These national goals should be realistic, reflective of the global targets set, and substantiated by assignment of the highest priority to the sector within overall socio-economic development - with concentration on unserved rural and urban areas. In addition, countries will no doubt wish to concentrate on: change in technology, with a shift toward lower-cost solutions; the use of community-based human and material resources; project identification and preparation to attract funding; assessment of human and institutional resources and campaigns to strengthen and increase their capacity; improvement of operation and maintenance to ensure safe water quality and avoid under-utilization of completed facilities; and development of national financing mechanisms.

36. Now that the countries of the region have established their goal in the water supply and sanitation sector - namely, the extension of coverage to the entire population by the end of the present decade - sector planners must chart their course of action so that the efforts can be set in motion. They must look to local, regional, and national needs to determine the kind and extent of the human, financial, technological, and institutional resources that should be mobilized for these efforts.

37. Planning for the Decade must have amongst its objectives the influencing of policy decisions at the highest level of government in order to integrate the sector in overall socio-economic development. The achievement of this aim demands intersectoral collaboration with Ministries of Public Works, Finance, Planning, and Health and Social Welfare to assign responsibility for programme promotion, direction, conduct, and administration; to encourage community participation in project operation and maintenance, and to achieve liaison between development and investment planners.

38. The health benefits stemming from access to clean water and adequate sanitation are unquestionable, but the economic benefits are perhaps of even greater significance through the potential savings on the treatment of water-related diseases and the greater productivity due to relief from distribution difficulties and the freeing of women and children from water-carrying chores. Socially, the construction of successful water supply and sanitation facilities can be the starting point for community self-reliance. It is difficult, therefore, to over-estimate the potential significance the Decade could have for the whole process of economic and social development.

/Annex 1

Annex 1

RESOLUTION ADOPTED BY THE GENERAL ASSEMBLY

[on the report of the Second Committee (A/35/592)]

35/18. Proclamation of the International Drinking Water Supply and Sanitation Decade

The General Assembly,

Deeply concerned that a large part of the world's population does not have reasonable access to safe and ample water supplies and that an even larger part is without adequate sanitation facilities,

Concerned also that the plight of that population will not improve significantly unless there is a major commitment and effort on the part of Governments and of the international community to bring about the necessary changes,

Recalling that Habitat: United Nations Conference on Human Settlements called for Governments to adopt programmes to provide safe drinking water for all by 1990, if possible,1/

Recalling further that in the Mar del Plata Action Plan, the United Nations Water Conference called for the designation of the decade 1981-1990 as the International Drinking Water Supply and Sanitation Decade,2/

Noting with satisfaction the growing efforts by Governments and by intergovernmental and non-governmental organizations, in response to that Plan, to increase the flow of technical and financial co-operation to developing countries in water supply and sanitation,

Recalling also its resolution 34/191 of 18 December 1979, by which it decided to hold a special one-day meeting to launch formally the International Drinking Water Supply and Sanitation Decade,

Bearing in mind resolution 25, entitled "International Drinking Water Supply and Sanitation Decade", adopted on 30 July 1980 by the World Conference of the United Nations Decade for Women: Equality, Development and Peace,3/

1/ See Report of Habitat: United Nations Conference on Human Settlements, Vancouver, 31 May-11 June 1976 (United Nations publication, Sales No. E.76.IV.7 and corrigendum), chap. II, recommendation C.12.

2/ See Report of the United Nations Water Conference, Mar del Plata, 14-25 March 1977 (United Nations publication, Sales No. E.77.II.A.12 and corrigendum), chap. I, para. 15.

3/ Report of the World Conference of the United Nations Decade for Women: Equality, Development and Peace, Copenhagen, 14-30 July 1980 (United Nations publication, Sales No. E.80.IV.3), chap. I, sect. B.

1. Proclaims the period 1981-1990 as the International Drinking Water Supply and Sanitation Decade, during which Member States will assume a commitment to bring about a substantial improvement in the standards and levels of services in drinking water supply and sanitation by the year 1990;

2. Calls upon Governments which have not yet done so to develop the necessary policies and set the targets to this end, to take all appropriate steps for their implementation, to set sufficiently high priorities for the activities concerned and to mobilize adequate resources to achieve their targets for the Decade;

3. Urges Governments to strengthen, as appropriate, their institutional frameworks for carrying out these activities, to mobilize the necessary technical expertise at all levels and, in general, to heighten popular awareness and support through education and public participation programmes;

4. Calls upon Governments, organs, organizations and bodies of the United Nations system and other intergovernmental and non-governmental organizations concerned to continue and, if possible, to increase their technical and financial co-operation with developing countries in order to enable them to attain the targets they have set, and to continue also their efforts to co-ordinate their activities so as to maximize the impact of their assistance to developing countries;

5. Calls upon the regional commissions to review periodically, on the basis of national reports, the progress being made by the Governments of their respective regions in establishing national targets and carrying out programmes to attain those targets;

6. Decides to review at its fortieth session the progress made towards the attainment of the Decade's national and international goals, as outlined in the report of the Secretary-General concerning the present situation and prospects relative to the Decade,4/ and requests the Secretary-General, in consultation with the Administrative Committee on Co-ordination, to prepare a comprehensive analysis of the situation on the basis of progress reports by Governments and by the international organizations concerned and to submit it to the General Assembly at that session through the Economic and Social Council.

55th plenary meeting
10 November 1980

4/ A/35/367.