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WHO'S HUMAN HEALTH AND ENVIRONMENT PROGRAMME

Review of the medium-term programme for
the promotion of environmental health

At its sixty-third session in January 1979, the Executive Board considered the report of its Programme Committee on the global medium-term programme for the promotion of environmental health (document EB63/44), to which the Director-General's report outlining the programme was annexed. The Board concluded its review by adopting resolution EB63.R18,¹ in which it endorsed the medium-term programme.

As decided in that resolution, the Programme Committee's report together with the Director-General's report is herewith transmitted to the Thirty-second World Health Assembly. The Board's comments on the programme appear in the summary records of its discussions.² The Health Assembly is invited, in the light of those comments, to consider the draft resolution recommended by the Board for its adoption in resolution EB63.R18.

¹ Executive Board, sixty-third session: Resolutions and decisions (document EB63/48), page 21.

² Executive Board, sixty-third session: Summary records (document EB63/50), summary records of the 20th meeting, section 2, and 24th meeting, section 2.



EXECUTIVE BOARD

Sixty-third Session

Provisional agenda item 18

SIXTH GENERAL PROGRAMME OF WORK COVERING A SPECIFIC PERIOD
(1978-1983 INCLUSIVE)

GLOBAL MEDIUM-TERM PROGRAMME FOR THE PROMOTION OF ENVIRONMENTAL HEALTH

Report of the Programme Committee of the Executive Board

1. The Committee was informed that the global medium-term programme for the promotion of environmental health (document EB63/PC/WP/5 Rev.1)¹ presented a synthesis of targets and activities in all the WHO regions and at headquarters, and indicated how they responded to the policy guidance from the Health Assembly, contained in principal objectives 12.1 and 12.2 of the Sixth General Programme of Work and in subsequent resolutions of the Health Assembly. It also took into account the decisions made by governments at a series of international conferences, including the United Nations Conference on the Human Environment (1972), the United Nations Conference on Human Settlements (HABITAT) (1976), and the United Nations Water Conference (1977). It set out a number of global management considerations that were basic to its implementation. On this basis, medium-term programmes had been drawn up for each of the regions and for headquarters, with full details in respect of specific targets and activities for each of the six years concerned.
2. The process of preparing the medium-term programme had begun in August 1977 with a meeting of regional advisers on environment health and selected national representatives. The second step had been the preparation of the six regional medium-term programmes. Each region had followed its own method of consultation at the national level, including the use of country programme profiles, existing documentation, and direct consultations. The headquarters medium-term programme had been drafted subsequently, in collaboration with other major programmes of the Organization. The process had been completed with the preparation of the global medium-term programme, again through a meeting of regional advisers on environmental health and selected national representatives.
3. Two major priorities were identified in the medium-term programme: (1) provision of water supply and sanitation, with emphasis on rural and underserved populations, in accordance with the targets established for the International Drinking-Water Supply and Sanitation Decade (1980-1990); and (2) assessment of adverse effects on human health of chemicals in the environment, and control of the pollution of air, water, food and land. Important aspects of the programme included the strengthening of: environmental health policies and programmes consistent with national socioeconomic development plans; national plans and programmes for water supply and sanitation; the transfer of appropriate technology; policies and institutions for the prevention and control of environmental pollution and hazards, and for ensuring food safety; and the establishment of an international cooperative programme on the safety of chemicals. WHO's programmes emphasized measures concerned with the protection and promotion of human health; in respect of other factors, the Organization coordinated its work closely with that of relevant organizations.

¹ Reproduced in Annex.

4. The Committee recognized the relationship between the environment and human health in all countries and hence the importance to the Organization of the environmental health programmes, and noted the wide scope of the programme in response to the specific environmental conditions prevailing in countries at various stages of social and economic development. It expressed satisfaction with the two major priorities identified in the medium-term programme and the efforts not only to improve conditions in the environment, but also to identify, monitor and evaluate the effects of environmental quality on the human organism and to prevent any harmful effects.

5. It was necessary to study the emphasis given in the medium-term programme to the various aspects of environmental health and to consider the differences existing from country to country and region to region, notwithstanding newly emerging global concerns. It was important to emphasize the evaluation of the effects of new pollutants on human health and to strengthen activities related to the prevention and control of pollution and contamination of air, water and food. The Committee noted that considerable detail was provided in the programmes for headquarters and the regions, as shown in Table 1 on pages 19-21 of document EB63/PC/WP/5 Rev.1. It was pointed out that WHO was in a unique position to advise on international problems, including the effects on health of pollution across national frontiers; the uptake of pollution in the human body, which called for careful consideration of the medical and sanitary aspects; and the development of criteria and standards.

6. Coordination and collaboration were essential to the success of the medium-term programme. While the question of coordination between WHO and other agencies had been adequately reviewed in a report by the Director-General to the Twenty-ninth World Health Assembly (document A29/11), and a number of new developments were described in the medium-term programme, additional information would facilitate a better understanding of the relationship between the programme and other major WHO programmes such as primary health care. At the national level, responsibility for the promotion of environmental health was frequently divided among many agencies, and a comprehensive approach to the problem of environmental health by the Organization was therefore important. The global medium-term programme was useful as a broad guideline in that respect; at the same time, the existence of individual medium-term programmes for each region facilitated close cooperation between WHO and national agencies, which contributed to the improvement of environmental health.

7. The Committee considered in detail the need to establish clear targets, quantified wherever possible, with a view to facilitating programme management, including evaluation. It felt that the global organizational targets of the medium-term programme were sufficiently quantified, but noted that one of the two major priorities was technical cooperation in the planning and programming of basic sanitary measures (particularly water supply and sanitation), as derived from the targets set for the International Drinking-Water Supply and Sanitation Decade (1980-1990). However, the Committee noted that quantification of targets was undertaken, where possible, at the regional level, where it was not only more practicable in the light of the dialogue between the Organization and individual governments, but also more important as a tool in programme management. In the global medium-term programme considered by the Committee 13 targets were set forth, each of which integrated relevant regional targets as identified in response both to global policy guidance and to the particular needs existing in Member States. The Committee noted that in order to study the full programme in detail, it was essential to take into consideration the targets, activities and tables contained in the headquarters and six regional programmes which were made available to members of the Committee.

8. The Committee then considered the targets established for the International Drinking-Water Supply and Sanitation Decade and discussed whether they were realistic. It was informed that the Director-General had reported to the Twenty-ninth World Health Assembly in 1976 (document A29/12 Rev.1) on the progress made during the first half of the 1970s, and that subsequent studies undertaken by WHO for the United Nations Water Conference had indicated that, measured by the current rate of investment, the efforts to reach the target needed to be increased in urban areas by about 20% for water supply and by more than 100% for sanitation, and in rural areas by about 300% for both water supply and sanitation. In its cooperative activities with Member States, the Organization was finding considerable determination at the national level

to proceed with accelerated programmes, and also a readiness on the part of bilateral and multilateral development programmes to step up efforts during the Decade. Furthermore, the primary health care concept had laid down a number of operational principles (e.g., the multi-sectoral approach, the need for health education and community participation, and the application of a suitable technology) which should now guide all activities undertaken towards reaching the target of water and sanitation for all by the year 1990, whether national or international. There was reason for optimism, although it was recognized that the achievement of the target for the Decade would be difficult.

9. The medium-term programme did not deal with the target of water and sanitation for all by 1990 in operational terms because WHO did not assist governments in the actual building of water supply systems, nor in their operation and maintenance. The corresponding WHO targets were therefore not expressed in terms of population coverage or of investment. Nevertheless, the Organization was responsible for monitoring global progress towards reaching the target for 1990 and a number of activities for that purpose formed part of the medium-term programme. The targets were those applicable to the areas in which WHO cooperated with Member States and which were stipulated in the Sixth General Programme of Work, for example, cooperation in national planning and programming for water supply and sanitation. Consequently, quantitative targets were to be found in the regional programmes for providing this cooperation to a specified number of Member States during the period 1978-1983.

10. Similarly, targets were established in the medium-term programmes for headquarters and some regions for the monitoring and control of pollution of air, water, land and food; the evaluation of the effects on health of chemicals in the environment; and the international programme on the safety of chemicals, in respect of which a full report was to be presented to the sixty-third session of the Executive Board.

11. The disparity between the proposed programme level and the present known level of resources was noted with concern. The question was raised as to whether this was realistic and also whether the call for the doubling of resources reflected WHO's policy. The Committee considered that there was not enough information to assess the validity of this call for the doubling of resources, and that there was no adequate analysis of the relationship between resources and output. In reply it was pointed out that the paper under consideration was not a budget document, and that it was based on the needs of Member States and the priorities expressed by them, taking into account the present potential for attracting extra-budgetary resources. On the basis of the preliminary findings of a survey currently under way, some 70 to 80 developing countries had expressed interest in expanding their water supply and sanitation programmes, frequently in cooperation with WHO. Some additional extra-budgetary resources had already been provided for the programme, and there were other potential contributors. Furthermore, the amount of extrabudgetary resources actually available in a given year was normally higher than the forecast, and the Secretariat considered that these factors indicated that the call for the doubling of resources was in line both with needs and with reasonable expectations as regards their availability. Funds from the regular budget would be required to help in the management of extrabudgetary resources.

12. With respect to the safety of chemicals, the Organization was making use of all available resources, including the use of national inputs through institutions and panels of experts. The report to be submitted by the Director-General to the sixty-third session of the Executive Board on the evaluation of the effects of chemicals on health (document EB63/20) would provide full information on this subject.



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SIXTH GENERAL PROGRAMME OF WORK
COVERING A SPECIFIC PERIOD 1978-1983

GLOBAL MEDIUM-TERM PROGRAMME FOR THE
PROMOTION OF ENVIRONMENTAL HEALTH

Report by the Director-General

This document outlines the global medium-term programme for Promotion of Environmental Health (MTP/PEH), which has been elaborated on the basis of the principles and objectives of the Sixth General Programme of Work, the report of the Director-General to the Twenty-ninth World Health Assembly on WHO's human health and environment programme (document A29/11), and the policy guidance given by the Health Assembly in resolutions WHA29.45, WHA30.33 and WHA30.47.

In developing this medium-term programme, stress has been laid on expressed priorities and needs of Member States, and particularly on the wishes of Member States in respect to technical cooperation with the Organization. This had led to the formulation of two major priorities, and to a managerial framework with four component programmes, which together aim at the achievement of 13 targets and 41 specific activities during the six-year period 1978-1983.

The document shows how this major programme responds to its policy guidance; how it is adapted, through the seven coordinated medium-term programmes prepared by the six regional offices and by headquarters, in response to the operational requirements of the Organization; and how these seven entities and their activities intermesh. Details of these individual medium-term programmes will be available in the meeting room for consultation.

CONTENTS

	<u>Page</u>
INTRODUCTION	3
I. SITUATIONAL ANALYSIS	5
1. The environmental problem	5
2. Problem definition and programme review	5
2.1 Environmental planning and management	6
2.2 Basic sanitary measures	7
2.3 Recognition and control of environmental hazards	9
2.4 Food safety	9
II. PROGRAMME FORMULATION	10
1. Policy basis and major priorities	10
2. Trends and objectives of component programmes	12
2.1 Environmental health planning and management	13
2.2 Basic sanitary measures	13
2.3 Recognition and control of environmental hazards	13
2.4 Food safety	14
3. Guiding principles	14
4. Targets and activities	15
III. MANAGEMENT CONSIDERATIONS	22
1. General	22
2. Methods of cooperation at country level	22
3. Utilization of national expertise	23
4. Pattern of staff utilization	24
5. Resources	24
5.1 At the national level	24
5.2 At the international level	24
6. Monitoring, information feedback and evaluation	28
7. Coordination	28
8. Special problems	29
9. Conclusion	29

INTRODUCTION

1. The promotion of environmental health is one of the major priorities of the Organization. Its history dates back to the early years in the life of WHO. It has evolved over the last three decades on the basis of policy guidance received both from the Organization's governing bodies and from major United Nations conferences such as those on the Human Environment (1972), on Human Settlements - HABITAT (1976) and on Water (1977). The present medium-term programme was drawn up as an instrument for continuing reorientation and as a basis for detailed programme planning and implementation during the six-year period 1978-1983.
2. The policy guidance received from the Organization's governing bodies is contained in the Sixth General Programme of Work, in specific resolutions passed on the subject of environmental health, and in the new programme budget policy, which emphasizes technical cooperation. Other factors have contributed, such as the concept of primary health care, with its emphasis on multidisciplinary, multisectoral action at the community level; the role of WHO with respect to other resources external to the country concerned that can contribute to the improvement of health; the priority given to planning and programming, as manifested in country health programming; the increasing role of national resources in implementing the Organization's programme; information systems development; and health services research.
3. The impact on programme orientation of the United Nations conferences mentioned in paragraph 1 above is significant since, in those conferences, governments identified major priorities for their own development programmes. These priorities must influence the Organization's programme for the promotion of environmental health if only because of the new opportunities created thereby for the accomplishment of the ultimate objective of environmental health - to contribute to the overall improvement of the health status of people in all countries. Thus, perhaps the major variable influencing the current orientation of the programme in environmental health is constituted by the evolving situation and needs in the Organization's Member States. Increasing national self-reliance, manifested in the first instance by the increasing human resources available in Member States and also by a greater participation of community resources, is probably the most important criterion. Accompanied by the persistent lack of clear-cut policies for environmental health in many countries, these newly available resources of Member States greatly influence the input which the Organization can, and therefore should, make to the development of national environmental health programmes, i.e., emphasis on planning and programming; cooperation in broadening the institutional and managerial bases; and transfer of scientific and technological information as regards both the old and persistent, and also the new problems of environmental health.
4. Two major thrusts of the Organization's programme for the promotion of environmental health have clearly emerged as being:
 - (1) technical cooperation in planning and programming for basic sanitary measures (particularly water supply and sanitation), with emphasis on rural and underserved populations as highlighted by the targets set for the International Drinking-Water Supply and Sanitation Decade 1980-1990, accompanied by cooperation in strengthening institutional and managerial capacity and the transfer of information and experience;
 - (2) worldwide assessment of new environmental hazards arising from socioeconomic development programmes and projects now under way in all countries - and which must be prevented if the benefits of these very development activities are to be safeguarded - accompanied by technical cooperation in the planning and implementation of national programmes.
5. In developing this medium-term programme, equally serious attention was given, on the one hand, to the need to build it up from expressed priorities and needs of Member States, and particularly their wishes in respect of technical cooperation by the Organization; and, on the other hand, to regional and global developments which have raised concerns to which the Organization must address itself if it wants to maintain leadership in the field of environmental health and ensure that its programmes effectively lead rather than merely respond

to needs as they arise. This has led to a managerial framework with four component programmes,¹ which together implement the principles and detailed objectives set forth in the Sixth General Programme of Work. Each programme has its specific objectives, and together they aim at the achievement of 13 targets within the medium-term programme.

6. No attempt has been made in the present medium-term programme to imply that the various activities it mentions are carried out uniformly throughout the Organization, or that certain targets are pursued equally vigorously throughout WHO, or that the objectives of the four component programmes are equally relevant for each of the Organization's seven structural entities. Environmental health priorities and needs vary from country to country and from region to region, and priorities and needs for technical cooperation at the country level may be quite different from those at the regional and global levels. The global medium-term programme thus starts from the premise that there are seven operational entities each of which engages in programme planning, management and evaluation, and that the global medium-term programme should therefore not try to be a managerial instrument for global programme management; it should, rather, show how the major programme responds to overall policy guidance; how it is adapted, through seven medium-term programmes, to the requirements of the Organization's seven operational entities; and how the activities of the latter intermesh in the light of the same overall objectives.

7. Many lessons have been learned during the implementation of WHO's programme in environmental health during the last three decades; the most recent were discussed in the Director-General's report to the Twenty-ninth World Health Assembly in document A29/11. All the evidence suggests that the present medium-term programme should include - in addition to full information on policy, priorities, objectives, guiding principles, targets and activities - a review of those management considerations which are most pressing and relevant for the six-year period covered. Among other things, these relate to methods of cooperation at the country level (where, in the light of the International Drinking-Water Supply and Sanitation Decade, the need for a multidisciplinary and multiagency approach cannot be over-emphasized) and to the need to link efforts in this field with other developmental activities. This has led to arrangements with UNDP and other international agencies for a new approach to cooperative action at the country level, supported by regional and global action which aims, on the one hand, at strengthening cooperation at the country level and, on the other hand, at increasing the flow of external resources to countries so as to achieve the targets of the International Decade.

8. Another consideration is the mobilization and utilization of national expertise, which can assume wider functions in the implementation of this programme. A perennial question has been how the expertise of WHO's professional staff can best be utilized, and a number of developments are indicated here as calling for changes in management procedures. This in itself will lead to new types of technical cooperation. Finally, in order to maintain the Organization's role as a stimulus in the field of environmental health, programme management must devise improved methods for programme monitoring, information feedback and evaluation.

9. The shortage of resources for this programme cannot be overemphasized. For 1978, some 22 million dollars are available, this being a meagre 7.1% of the total budget of the Organization; of this amount, only a little over one-third comes through the regular budget. For 1979, the percentage drops to 6.02%, partly because of declining funds from extrabudgetary sources. The decline in extrabudgetary resources is seen as reflecting the inability of national health agencies to promote a continuing high priority for environmental health within national development plans. A sustained effort by the Organization in consultation with national economic planners is necessary. The remedy might lie in the new approach to inter-agency cooperation now being used in preparing for the International Drinking-Water Supply and Sanitation Decade, that is, in a new cooperative venture at the country level, a key role being assumed by UNDP. The planning and programming of the Organization's activities would then be linked directly with national decision-making as related to the use of both internal and external resources. It is envisaged that resources need to increase by a factor of two during the next few years.

¹ See Table I.

10. A similar problem exists with respect to the second priority, namely, the assessment of new environmental health hazards and the prevention of pollution or contamination of air, water and food. Here, too, a major increase in resources is needed, and new approaches must be sought to raise funds. The only feasible approach would seem to be to solicit from Member States the cooperation of their scientific institutions, which must themselves be strengthened by additional resources to allow this participation in an expanded international programme; and to solicit contributions to a specially earmarked fund in an amount of four to six million dollars per year.

11. That WHO's responsibility for health is nowhere more apparent than in the environmental programme. Coordination with others is imperative, since only such coordination will ensure both the availability of more resources for national programmes and also an impact on other development fields. Coordination is therefore an important element, not only in the management of this programme, but also in its content, as indicated in a substantial number of the activities that compose it.

I. SITUATIONAL ANALYSIS

1. The environmental problem

1.1 Current environmental action reflects an increasing understanding of the complexities and interdependence of biological, physical, chemical, social and economic factors that influence human health and wellbeing.

1.2 Some of these factors are: (a) rapid population growth and movement; (b) industrial and agricultural development; (c) advances in science and technology; (d) poverty; (e) illiteracy; and (f) societal attitudes which govern collective and individual response to environmental conditions. These factors impact to varying degrees in all countries.

1.3 The three major causes of morbidity and death in the developing countries are water-, food- and vectorborne communicable diseases. The severity of these diseases is compounded by malnutrition, which increases susceptibility and impairs ability to survive them.

1.4 Chronic and noncommunicable diseases such as cardiovascular diseases, cancer, and injuries due to accidents are the leading causes of morbidity and death in the developed and industrialized countries. The major contributing factors to these diseases are chemical, physical and socioeconomic environmental hazards, and also such self-imposed risks as cigarette-smoking and improper diet. These hazards are the adverse side-effects of advances in technology, expansion of industry and agriculture, with consequent increases in environmental pollution, and in the complexities of social life.

1.5 Although the environment-related effects on health that occur in developing countries are different from those in developed countries, many countries experience both types.

1.6 In global terms, there has been an overall trend towards the improvement of environmental health, although the gains have been not uniform but selective, and mainly in the urban sector, e.g. the provision of sanitary utility infrastructures. Environmental health services and infrastructures in rural areas continue to lag behind those in urban areas. The provision of safe and adequate water supplies and hygienic waste disposal facilities remains a priority health need for most developing countries. Water- and foodborne diseases are still prevalent, although they show a declining trend. Chemical pollution is increasing, and in some situations is becoming a serious threat to air and water quality, to food-chains, and consequently to human health.

2. Problem definition and programme review

Problems within the four component programmes of environmental health, and major aspects of WHO's previous work, are highlighted in the following paragraphs.

2.1 Environmental planning and management

2.1.1 Programmes and projects for economic and social development are under way in all countries, and they have a number of impacts on the environment and on environmental health. Urbanization and industrialization create air and water pollution problems, excessive demand for services and amenities, and other environmental stresses of major proportions. During the last decade, it has been recognized that socioeconomic development and preservation of the quality of the environment are compatible, provided that sound concepts of planning and management are applied. For instance, the close association between development and health may provide an opportunity to improve environmental health for large rural populations. However, in order to achieve this objective, such improvement must be incorporated in rural development schemes. Also, adequate investment must be made to prevent the negative impact on health of large agricultural and water resources development. Expanding and changing industrial and agricultural technology has caused environmental alterations of increasing complexity, widening the public health horizon and necessitating new and increased emphasis on the control of the physical, biological and social environment.

2.1.2 Among the main problems faced by governments are: inadequate perception of the importance of environmental problems; the absence of a policy on environmental quality; the frequent fragmentation of environmental control functions among a multiplicity of governmental agencies; a lack of coordination between national health planning and socioeconomic planning, insufficient and inadequately trained personnel; inadequate legislation; insufficient funding of programmes; and lack of efficient ways of collecting and assessing data on environmental and sanitary conditions. These problems do not have isolated effects but interact in complex ways to influence what it is possible to do in any individual country. This has led to the establishment of new kinds of administrative structures for environmental protection in an increasing number of countries. Collaboration between health agencies and these new structures and their orientation towards health priorities are only gradually taking shape.

2.1.3 The regional medium-term programmes cite the need for action in the areas of (a) institutional development, (b) integration of concern for environmental health within national plans for development, (c) environmental planning, and (d) manpower for environmental health.

2.1.4 WHO has been collaborating with Member States in the establishment and strengthening of environmental health services at regional, national, or local level, in health ministries, and sometimes in other departments concerned. The education and training of environmental health personnel has been one of the most important areas of collaboration with Member States and has formed an essential element of many projects. This work has been carried out on the basis of the technical policies adopted by the Health Assembly and the Executive Board and often developed with the advice and recommendations of WHO expert committees, scientific groups and consultation groups during the past three decades. Special mention should be made in this connexion of the reports of the Expert Committees on National Environmental Health Programmes¹ and on the Education of Engineers in Environmental Health,² the report of the Scientific Group on Evaluation of Environmental Health Programmes,³ the report of the Consultation Group on the Functions of the Engineer in the Assessment and Control of Environmental Conditions and Hazards that affect man's health,⁴ and the Public Health Paper on administration of environmental health programmes.⁵ These publications, among other studies and guidelines of global import, provide the necessary technical guidance and methodological support to environmental health planning and management. Some of the work

¹ WHO Technical Report Series, No. 439, 1970.

² WHO Technical Report Series, No. 376, 1967.

³ WHO Technical Report Series, No. 528, 1973.

⁴ Unpublished document DIS/74.2.

⁵ M. Schaefer. Administration of Environmental Health Programmes: A Systems View, Geneva, World Health Organization, 1974 (Public Health Papers, No. 59).

now under way with the cooperation of Member countries includes a study on coordination at national level of multiagency environmental planning, and the elaboration of an environmental health planning guide.

2.2 Basic sanitary measures

2.2.1 Country-by-country and regional information on coverage of community water supply and excreta disposal services, and on the investment made during 1971-1975, was published in the World Health Statistics Report.¹ This shows that of the 77% of urban population having access to piped water supply, 57% had house connexions, and the remaining 20% had reasonable access to public standposts. Of the 75% of urban population with reasonable sanitation facilities, 25% were served by connexion to public sewers, the remaining 50% possessing household systems. The backlog of work to be carried out in rural areas is quite apparent: 78% of the population is without an adequate water supply, and 85% is without satisfactory sanitation services.

2.2.2 There are considerable differences between regions and from country to country. Moreover, it must not be overlooked that many water supply systems are overloaded to the extent that intermittent supply is resorted to, so as to ensure water to all the metropolitan areas. In 1970, as much as 54% of the population served by public piped water received it only on an intermittent flow basis. This fact assumes particular importance in view of recent epidemiological findings relating an outbreak of cholera in one Member State to an intermittent-flow community water supply. This is in contrast to most current epidemiological findings in the present cholera pandemic, which have implicated faecally-contaminated foods rather than water supplies.

2.2.3 Water quality and water quality surveillance, the sanitary inspection of water supply and wastes disposal facilities, and the operation and maintenance of facilities are subjects of particular concern. The fact is that in few countries are there adequate administrative arrangements for this purpose, and health agencies do not assume their obligatory role. Also there is inadequate community involvement in operating and maintaining systems once they have been constructed. Health standards have not been established or, where they exist, are often not enforced. The trained manpower needed to supervise and inspect is in short supply in health agencies, or is relegated to seemingly more important tasks.

2.2.4 A considerable quantity of water is also "unaccounted for" (undetected leakage, unauthorized use, unmetered supply, under-registration of meters, etc.). While no firm data are available, enlightened guesses put this at between 20% and 50% of the treated water leaving the waterworks.

2.2.5 The information on the adequacy and accessibility of water supply and sanitation services which the Organization has assembled and analysed has had a major impact in guiding policy development for this sector at both the national and international levels. The emphasis contributed by the Organization is on the overriding need to provide basic sanitation services to those most seriously affected in terms of water-related disease, and to the underserved, particularly in rural areas.

2.2.6 The major constraints hampering progress in these areas are: (1) lack of priority for community water supply and sanitation in national economic development plans; (2) lack of adequate national policies, plans and programmes; (3) application of inappropriate technology; (4) absence of a viable financial policy; (5) continuing need for manpower development; (6) lack of community participation; (7) inappropriate institutional arrangements and poor management of programmes; and, last but not least, (8) lack of proper operation and maintenance of existing systems (often directly related to inadequate training of operators), including lack of surveillance of the quality of water provided to the consumer.

¹ World health statistics report, 29: 543 (1976).

2.2.7 The major activities in the programme of Basic Sanitary Measures have so far been as follows:

(a) Promotion and cooperation with Member countries to initiate activities in environmental sanitation and rural water supply. Programmes have been developed in many countries, and in some have been incorporated into socioeconomic development plans and considered as a priority programme in environmental health. Many of these activities have been carried out jointly with UNICEF. WHO field engineers have participated in a great variety of tasks, including the preparation of specific plans and programmes and the identification of sources for funding for projects.

(b) Manpower training. A large number of professionals have been trained in sanitary engineering and in general sanitation. This investment has paid handsomely, as is evident from the number of projects implemented in countries. Several in-service training programmes for plant operators and other staff have been conducted in order to upgrade the quality of personnel operating and maintaining water supply undertakings, and ensuring water quality and the sanitary quality of waste disposal. Technical cooperation has also been provided to training institutions.

(c) Cooperation in national planning, primarily as part of the World Bank/WHO cooperative programme, which was initiated in 1971. This has been instrumental in placing water supply and sanitation in the mainstream of national development plans, and in identifying sector-wide needs and the potential roles of the different national agencies concerned as well as of WHO, UNDP, bilateral assistance organizations, and lending agencies. Sector studies have involved the assembling, analysis and evaluation of data, and projections of future requirements. The joint participation of WHO and the World Bank in the cooperative programme helps to ensure that health requirements are taken into account in the Bank's lending decisions. To date, reports on 27 sector studies have already given rise to some 140 project proposals, many of which - despite severe constraints - are under preparation or implementation by Member countries. An example is the massive rural water supply project with World Bank loan assistance in Uttar Pradesh, India.

(d) Pre-investment activities are often sponsored by potential lending agencies, including the World Bank and regional development banks, as well as by UNDP. As the competent intergovernmental agency for community water supply and wastes disposal, WHO is usually involved in UNDP-financed studies, either as executing agency or in an advisory capacity. The projects include institutional and manpower development, giving emphasis to the technical and managerial capabilities required to implement ongoing programmes and mobilize internal and external resources. Over the past decade cooperation has covered some 40 countries interested in undertaking pre-investment studies for urban and rural community water supply and wastes disposal facilities. These studies have been instrumental in decisions to build new water supply and sewage systems at a cost of over 500 million dollars, benefiting to varying degrees a total of about 60 million people.

(e) Information. Collection of data at regional and global level on the current status of community water supply and wastewater disposal facilities has in many instances provided a clear picture of the country situation for the first time.

(f) Transfer of technology and methods. Collaborating centres for water supply and wastes disposal have been established at national institutions, for the exchange of technical information. The activities of these centres are being re-evaluated in the light of the expanded needs of the International Drinking-Water Supply and Sanitation Decade, and past shortcomings in resources of the centres which impaired their effectiveness. Research investigations, demonstration projects and field trials are encouraged in the search for technologies appropriate to local situations. A number of publications on basic sanitation have been issued by the Organization, covering a large variety of subjects including guidance material for the sanitary surveillance of water quality, the International Standards for Drinking-Water and others.

2.3 Recognition and control of environmental hazards

2.3.1 Environmental health hazards related to industrial, agricultural and technological development are common to both the developed and the developing countries, although they vary substantially as to type, scope and severity. The industrialized countries face mainly the problems of environmental pollution caused by chemical and physical agents. In most of the developing countries, however, the uncontrolled discharge of wastes is - and will remain - the major pollution problem for years to come. Increasingly, many of the developing countries are being faced with the problems caused by the presence of chemical and physical agents as well.

2.3.2 Other significant problems include: (a) the achievement of effective collaboration among jurisdictions to deal with pollution which is regional, international or global in character; (b) deficiencies in infrastructures as well as fragmentation of responsibility for control of hazards among different government departments; (c) lack of appreciation of the need for control of environmental hazards in some areas; (d) lack of budgetary resources to cope with the ever-increasing complexity of environmental hazards, e.g., 200 to 1000 new chemicals are put on the market every year; (e) lack of knowledge of the health effects of pollutants, which prevents timely and cost-effective preventive action; and (f) inadequate techniques and means of monitoring human exposure to environmental hazards.

2.3.3 Manpower is another crucial deficiency. The assessment and management of environmental hazards requires a multidisciplinary personnel including experts in analytical and other branches of chemistry, in toxicology, epidemiology, engineering, economics, and in the legal and other professions. Until this problem is remedied, the chances of implementing environmental hazards control programmes are poor at best.

2.3.4 The environmental health criteria programme is concerned with evaluating the health hazards of environmental agents. Under this programme extensive evaluations have in four years covered some pollutants or groups of pollutants from a priority list of substances or classes of substances and physical environmental factors, and several criteria documents have been published. In addition, the health aspects of selected industries have been reviewed and the reviews made available. The methodological aspects of evaluation of health effects have also been considered, and monographs on toxicological and epidemiological methods are being prepared. The joint FAO/WHO pesticides programme is an operational aspect of this work. Research and training has also been promoted.

2.3.5 Health-related monitoring has received considerable attention: projects on air and water pollution monitoring have been initiated, and a project on biological monitoring has been designed. These programmes are intended to strengthen national programmes, promote the harmonization of methodology, and provide for an international synthesis of data. Certain monitoring and surveillance activities have also been carried out in relation to coastal and marine pollution.

2.3.6 The Organization has been active in training, in the development of guidelines and manuals on planning and implementation of control, and also in the execution of several large-scale UNDP projects for planning of sanitary utilities, air and water pollution control, and water resources development. It has also played a leadership role in developing international approaches to management of pollution control in regional seas and international rivers.

2.4 Food safety

2.4.1 Food can be the origin or vehicle of contaminants and agents (biological, chemical and physical) causing human disease. The contamination of food by living organisms is a primary concern in the majority of Member States, and food safety problems related to chemicals are increasing both in highly industrialized countries and in developing countries.

2.4.2 To ensure the safety and wholesomeness of food, a broad range of action at all stages - from its production, preparation, storage, distribution and handling to its final consumption - is needed. In most countries there is no single programme that covers all these aspects: activities in many sectors, and in a variety of programmes, must be focused on safeguarding the health of the food consumer.

2.4.3 Problems concerning food safety vary greatly between and within countries. The main factors involved are: the level of personal hygiene practised at the family level in the handling and preparation of foods; the quality of basic sanitary facilities (especially water supply); the diversity of foods eaten (from home-grown fresh foods to mass-produced processed foods).

2.4.4 Even though steady efforts are being made, in many countries the infrastructure to deal with food safety problems is inadequate. Protection of populations at high risk from foodborne diseases requires effective services to deal with basic sanitation; public education on simple hygiene measures in the production and preparation of food; adequate food storage; and the proper use of agricultural chemicals. From 1973 onwards international organizations have provided assistance to developing countries with training in food control, but much still remains to be done.

2.4.5 In the past, the work of the Organization was focused on collecting, evaluating and generating scientific information relating to the safety of food; on translating this information into internationally acceptable standards and codes of practice; and on conducting educational activities. Technical cooperation in the development of national strategies and programmes to ensure the safety of food was limited, although in some parts of the world such programmes have been initiated and successfully implemented. Moreover, a distinction was often made between contaminants of different origin, whereas protection of the consumer requires a more coordinated approach. All in all, the health risks arising from the use of food additives, pesticides and contaminants of chemical and biological origin have been evaluated; and standards and codes of practice for various foods have been elaborated by the Codex Alimentarius Commission.

II. PROGRAMME FORMULATION

The WHO programme for the promotion of environmental health stems from the basic objective of the Organization and more particularly the functions spelled out in Article 2 (i) of its Constitution: to promote, in cooperation with other specialized agencies where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions and other aspects of environmental hygiene. The programme underwent major reviews by the Twelfth, Twenty-fourth and Twenty-ninth World Health Assemblies on the basis of reports submitted by the Director-General.¹ On the priority subject of community water supply and sanitation, recognized by the Twelfth World Health Assembly as the key programme for the achievement of environmental health, the Nineteenth, the Twenty-fifth and again the Twenty-ninth World Health Assemblies gave policy directions for the programme.²

In the following paragraph the emerging policy basis and major priorities, the trends and objectives of component programmes, the guiding principles, and the resulting plan of action and activities covering the period 1978-1983 are presented.

1. Policy basis and major priorities

1.1 In the Sixth General Programme of Work Covering a Specific Period (1978-1983), the promotion and development of environmental policies and programmes, and their integration with

¹ See respectively WHO Official Records, No. 95, 1959, Annex 14; No. 193, 1971, Annex 13; and document A29/11 (WHO's human health and environment programme: Progress and future development).

² See respectively document A19/P&B/8 (Community water supply programme); document A25/29 (Community water supply programme - Progress report); and document A29/12 Rev.1 (Community water supply and wastewater disposal (mid-decade progress report)).

national economic development policies, plans and projects, are among the principal objectives of WHO. Furthermore, the Organization was requested¹ to plan and implement the environmental health programme on the basis of the proposals made in the report on WHO's human health and environment programme - progress and future development (document A29/11).

1.2 The most recent policy basis for the attention to be given to community water supply and sanitation (in addition to the objective stipulated in the Sixth General Programme of Work) is a series of Health Assembly resolutions² dealing with community water supply and excreta disposal and with the United Nations Water Conference, including the International Drinking-Water Supply and Sanitation Decade, 1980-1990.

1.3 The basis of work in the component programme of Recognition and Control of Environmental Hazards is also elaborated in a number of Health Assembly resolutions,³ as is the work in the component programme of Food Safety.⁴

1.4 The regional committees of the Organization have also enacted important resolutions pertinent to the promotion of environmental health as follows:

Africa

- Resolution AFR/RC22/R5, Long-term planning in environmental health
- Resolution AFR/RC27/R10, Environmental health

The Americas

- Official document 118, Ten-year Health Plan for the Americas
- Control of the bacteriological quality of drinking-water (CS 19/25)
- Resolution III/78 CAMH, Mechanisms of cooperation to accelerate water and sanitation programmes in rural and slum areas
- Resolution XXXIV of the XVII Pan American Sanitary Conference, Man/environment relationships
- Resolution XXIV of the XIX Pan American Sanitary Conference, Health and environment

South-East Asia

- Resolutions SEA/RC13/R7, Food hygiene and adulteration
 - SEA/RC15/R10, Health risks from food adulteration and contamination
 - SEA/RC22/R8, Environmental health
 - SEA/RC27/R7, Rural water supply programme

Europe

- Resolutions EUR/RC9/R7, Environmental sanitation
 - EUR/RC11/R7, Training of sanitary engineers and other sanitation personnel
 - EUR/RC17/R1, Environmental health in the European Region
 - EUR/RC18/R2, Noise control

¹ Resolution WHA29.45 (WHO's human health and environment programme).

² Resolutions WHA29.47 (Community water supply and excreta disposal); WHA30.33 (Coordination within the United Nations system - United Nations Water Conference); and WHA31.40 (Coordination within the United Nations system: United Nations Water Conference).

³ Resolutions WHA30.47 (Evaluation of the effects of chemicals on health); WHA31.28 (WHO's human health and environment programme - Evaluation of the effects of chemicals on health); and WHA31.29 (WHO's human health and environment programme - Evaluation of the effects of biological environmental factors on health).

⁴ Resolutions WHA30.51 (The role of the health sector in the development of national and international food and nutrition policies and plans); and WHA31.49 (Problems of the human environment: Food hygiene).

- EUR/RC19/R5, Long-term planning in the field of environmental pollution
- EUR/RC20/R11, Environmental pollution control
- EUR/RC21/R11, Environmental pollution control
- EUR/RC21/R16, Community water supply
- EUR/RC22/R11, Environmental pollution control
- EUR/RC24/R3, Review of the long-term programme in environmental pollution control

Eastern Mediterranean

- Resolutions EM/RC2/R.7, Environmental sanitation
 - EM/RC3/R.8, Environmental sanitation
 - EM/RC4A/R.13, Environmental sanitation
 - EM/RC5A/R.8, Environmental sanitation
 - EM/RC7A/R.22, Environmental sanitation
 - EM/RC24A/R.9, Environmental sanitation and gastrointestinal diseases
 - EM/RC9/R.7, Community water supply
 - EM/RC13/R.7, Community water supply
 - EM/RC17/R.6, Rural water supply
 - EM/RC17/R.2, Food sanitation
 - EM/RC18A/R.14, Food sanitation

Western Pacific

- Resolutions WPR/RC28.R13, Western Pacific Regional Centre for the Promotion of Environmental Planning and Applied Studies (PEPAS)
 - WPR/RC27.R6, Regional Centre for Environmental Health Sciences
 - WPR/RC26.R8, International programme for the improvement of water supply and sanitation in rural areas of developing countries
 - WPR/RC25.R2, Quality of water and food in international aviation
 - WPR/RC24.R5, Quality of drinking-water on international flights
 - WPR/RC24.R6, Quality of food on international flights

1.5 Decisions taken at the United Nations Conference on the Human Environment (Stockholm, 1972); HABITAT, United Nations Conference on Human Settlements (Vancouver, 1976), and the United Nations Water Conference (Mar del Plata, 1977) have also influenced policy.

1.6 While specific priorities vary according to the social and economic conditions prevailing in individual Member States and WHO regions, the policy basis established for this programme implies clearly that, globally, the major priority is given to the following two areas:

(1) provision of water supply and sanitation, with particular emphasis on rural and underserved populations in line with the target established for the International Drinking-Water Supply and Sanitation Decade (1980-1990); and

(2) assessment of the adverse effects on human health of chemicals in the environment, and control of the pollution and contamination of air, water, food and land.

In dealing with these major priorities, WHO's programme emphasizes those measures suitable for protecting and promoting human health; in respect of other factors, however, the Organization cooperates and coordinates its work closely with those other organizations which have particular mandates in the other aspects of the environment.

2. Trends and objectives of component programmes

For the implementation of the directives in the programme policy detailed above, the major programme for the promotion of environmental health is carried out through four component programmes, as shown below. Each of these programmes will emphasize a number of subjects; the trends in this emphasis are determined by the expressed priorities of Member States for cooperative activities with the Organization and thus derive from the programming process applied in establishing this medium-term programme.

2.1 Environmental health planning and management

2.1.1 Objective. To promote and cooperate with Member States in the development of national environmental health policies, and in the planning and management of programmes.

2.1.2 Trends. The emphasis of the Organization's programme during the period from 1978 to 1983 will be on:

(a) elaboration of national policies for environmental quality as part of socioeconomic development planning;

(b) assessment of environmental conditions and the analysis of their impact on health (particularly with respect to underserved urban and rural populations);

(c) strengthening of national management capacity (including the development of manpower) to implement coordinated national environmental control programmes carried out by different national agencies, the health agencies assuming a major role.

2.2 Basic sanitary measures

2.2.1 Objective. To promote and cooperate with Member States in the development of basic sanitary measures and to promote the active participation of other international and bilateral agencies concerned.

2.2.2 Trends. The emphasis of the Organization's programme during the period from 1978 to 1983 will be on:

(a) cooperation with Member States in national planning and programming for water supply and sanitation within the framework of the International Drinking-Water Supply and Sanitation Decade, including data collection, analysis and the strengthening of managerial capacity to carry out programmes.

(b) cooperation and coordination at the international level with the aim of increasing awareness of, and priority and the flow of external resources for water supply and sanitation to those countries and populations that are most seriously affected;

(c) transfer of information on appropriate technology;

(d) cooperation and coordination with primary health care and other development programmes in providing water supply and sanitation to rural populations;

(e) operation and maintenance of water supply and waste disposal systems, including the systematic hygienic surveillance of drinking-water quality.

2.3 Recognition and control of environmental hazards

2.3.1 Objective. To promote and cooperate with Member States in the development of recognition and control of environmental conditions and hazards that affect human health, and to coordinate work with international agencies concerned with other aspects of the problem.

2.3.2 Trends. The emphasis of the Organization's programme during the period from 1978 to 1983 will be on:

(a) development of national capacity to assess impact on health and to design legislative, administrative, monitoring and control programmes relating to the industrialization, urbanization and agricultural development taking place in Member States;

(b) recognition and control of environmental hazards of regional significance, through intercountry cooperation (particularly in respect of pollution of inland water and regional seas);

(c) evaluation of the effects of chemicals on human health, and dissemination of information thereon as a basis for the planning of national programmes for control;

(d) dissemination of information on technologies;

(e) accelerated and improved training of manpower.

2.4 Food safety

2.4.1 Objective. To promote and cooperate with Member States in the development of food safety programmes, and to collaborate with international agencies concerned.

2.4.2 Trends. The emphasis of the Organization's programme during the period 1978-1983 will be on the following:

(a) education of the public, particularly those population groups most seriously affected, in all aspects of food safety;

(b) development of appropriate food legislation and an effective food control infrastructure;

(c) training of food control personnel;

(d) identification and resolution of specific health problems relating to basic food hygiene, foodborne diseases of biological origin, and the chemical contamination of food;

(e) establishment of food-contamination monitoring programmes;

(f) evaluation of food hazards and dissemination of information thereon for application in national programmes (including the application of standards and guidelines of the Codex Alimentarius).

3. Guiding principles

3.1 The policies and major priorities of this medium-term programme stem from the specific directives of WHO's governing bodies on the subject of environmental health, at both global and regional level; the trends in programme emphasis; and the special need for technical cooperation at the country level. There are other guiding principles deriving from the new programme budget policy and the reorientation given to the work of WHO by its Member States.

3.2 On this basis, the following guiding principles govern the medium-term programme for the promotion of environmental health:

(a) adherence to the concept of technical cooperation, including technical cooperation among developing countries;

(b) provision of services to the most severely affected populations, particularly the underserved populations in rural and urban areas;

(c) promotion of community participation in the design of environmental programmes and in the management of environmental problems and services;

(d) support for the development of self-reliant national institutions to manage and resolve environmental health problems;

(e) promotion of the principle that environmental health must be taken into account in the formulation of policies, plans and programmes for socioeconomic development at all levels of government;

(f) assurance that technical cooperation with Member States involves all government agencies concerned with environmental health programmes;

(g) encouragement and facilitation of collaboration at the national and international levels to plan, finance and implement effective environmental health programmes;

(h) use of WHO's resources in stimulating other international and also bilateral and multilateral programmes that can contribute to the improvement of environmental health in Member States;

(i) promotion and coordination of research activities which are relevant to the strengthening of environmental health services, and the planning and implementation of national environmental health programmes;

(j) utilization of national capacity in carrying out international programmes, including those at the global level;

(k) supplementary use of resources available at the various organizational levels of WHO with a view to optimizing these resources and focusing them on common objectives.

4. Targets and activities

4.1 The targets set for this medium-term programme express what Member States will endeavour to achieve during and, in some instances beyond, the six-year period (1978-1983) and in the implementation of which WHO has been requested to cooperate. They are listed in the first column of Table I, the four parts of which each cover a component of the major programme, the titles and numbering being in accordance with the new programme classification structure. It is obvious that the achievement of these targets depends primarily on the activities undertaken by the countries themselves, with their own and other external resources. Activities undertaken by the Organization in achieving these targets would, in most cases, constitute only a small fraction of the work done.

4.2 In the programming process for this medium-term programme, the regional targets have been built up on the basis of a country-by-country review of national targets for the promotion of environmental health. These regional targets are to be found in the six regional medium-term programmes. The targets established for the utilization of WHO's resources available at the global level are based on both a review of the regional targets and an analysis of global concerns expressed by the Organization's membership, though in the absence of expressed globally applicable targets. These are the targets against which the activities of the seven organizational entities of WHO have been programmed, and against which they can be evaluated. The global medium-term programme sets forth 13 targets integrating those contained in the programmes of the seven organizational entities.

4.3 These global targets are not quantified, and it does not appear relevant to express them in numerical terms for detailed planning of activities and for evaluation; only the targets of the seven component medium-term programmes are of significance.

4.4 The activities also have been formulated on the basis of an analysis, country by country, of requests for WHO collaboration in the light of the targets established. Here, again, priority focus and content vary considerably from country to country, and therefore from region to region. Activities carried out at headquarters follow the principle that they are the complement to regional activities in achieving targets, or that they are in response to targets of worldwide significance. For the global medium-term programme, activities have been set forth representing frameworks for activities at the seven operational levels. They are not intended for detailed evaluation of the work of the Organization throughout the six-year period 1978-1983, but express in summary form the type of work carried out in the regions and at headquarters, depending upon its specific requirements. The emphasis on each of the 41 different activities identified is therefore not uniform from region to region, or from region to headquarters; the variations which exist are a reflection of the differences of priorities and needs in the various regions, but also a demonstration of how regions and headquarters supplement each other in their work. Full details of activities are to be found in the seven component medium-term programmes, in which information is also provided as to the relative emphasis on individual activities on a year-by-year basis for the six-year period 1978-1983.

TABLE I

Programme 5.1.1 ENVIRONMENTAL HEALTH PLANNING AND MANAGEMENT

Objective: To promote and cooperate with Member States in the development of national environmental health policies, planning, programmes and management.

Targets for period 1978-1983	Technical cooperation with Member States in carrying out the following activities	AFR	AMR	EMR	EUR	SEAR	WPR	HQ
1. All Member countries will have improved their level of capability to develop environmental health and protection policies and programmes consistent with national socioeconomic development plans.	1.1 Planning and development of environmental health and protection programmes.	●	●	●	●	●	●	●
	1.2 Strengthening national agencies responsible for environmental health.	●	●	●	●	●	●	○
	1.3 Establishment or strengthening of regional centres for environmental health.	●	●	●	●	○	●	◐
2. All Member countries will enhance national programmes for the strengthening and development of national institutions for the education and training of environmental personnel in sufficient quantity and quality at all levels to meet their needs.	2.1 Environmental manpower planning and management.	●	●	●	●	◐	◐	●
	2.2 Establishment and/or strengthening of requisite national institutions for the education and training of environmental personnel.	●	●	●	◐	◐	◐	◐
3. In most countries national institutions will have been developed and others strengthened to undertake activities related to environmental health.	3.1 Establishment or strengthening of national data and information collection systems.	◐	●	◐	◐	◐	◐	◐
	3.2 Promotion of methods and means for information exchange.	◐	●	◐	●	◐	◐	◐
	3.3 Promotion of research, development and application of appropriate technology in collaboration with national and regional centres.	◐	◐	●	●	◐	◐	●
	3.4 Utilization of the TCDC concept will be promoted to further self-reliance.	●	◐	◐	◐	◐	◐	○

- High level of activity
- ◐ Moderate level of activity
- Low level of activity

TABLE I (continued)

Programme 5.1.2 BASIC SANITARY MEASURES

Objective: To promote and cooperate with Member States in the development of basic sanitary measures, in collaboration with international and bilateral agencies concerned.

Targets for period 1978-1983	Technical cooperation with Member States in carrying out the following activities	AFR	AMR	EMR	EUR	SEAR	WPR	HQ
1. By 1983 most countries will have strengthened or expanded their capabilities to formulate and initiate the implementation of national plans for the extension of water supply and sanitation services, particularly in rural and underserved population areas, in keeping with resolutions of the WHO Governing Bodies and as agreed for the International Drinking Water Supply and Sanitation Decade (1981-1990).	1.1 Improvement of data collection; sector feasibility and design studies; and project identification for use in national socioeconomic plans.	●	●	●	◐	●	●	●
	1.2 Completion of rapid assessments of the sector and the preparation of national plans to meet the goals for the International Decade (1981-1990).	●	●	●	●	●	●	●
	1.3 Developing and strengthening of managerial, organizational and technical functions of national water supply and sanitation agencies including the development of legislative aspect, criteria and standards.	◐	●	●	◐	◐	●	◐
	1.4 Developing improved operation and maintenance of facilities with emphasis on training of operators.	●	●	●	◐	●	◐	○
	1.5 Collaborating with national, bilateral and international finance agencies in programmes for identification, development and the implementation of projects.	●	●	◐	●	●	◐	●
	1.6 Carrying out the coordinating role among United Nations and other agencies in implementing programmes in connexion with the International Decade (1981-1990).	○	◐	○	●	●	◐	●
2. Countries will develop and strengthen a network of collaborating institutions for water supply and sanitation.	2.1 Developing criteria, strategies and mechanisms for establishment of a network of collaborating institutions.	○	●	●	◐	○	○	●
	2.2 Developing and implementing national and intercountry courses, projects and workshops for training water supply and sanitation workers, including the preparation of training aids and manuals.	●	●	●	◐	○	○	○

● High level of activity

◐ Moderate level of activity

○ Low level of activity

TABLE I (continued)

Programme 5.1.2 (continued)

Targets for period 1978-1983	Technical cooperation with Member States in carrying out the following activities	AFR	AMR	EMR	EUR	SEAR	WPR	HQ
3. Strengthening general sanitation activities in all ministries and national agencies concerned.	2.3 Promotion of applied research to develop appropriate technology for use in the extension of water supply and sanitation services, with emphasis on rural and underserved areas.	●	●	●	○	●	○	●
	2.4 Development of mechanisms for the collection and dissemination of information on water supply and sanitation.	●	●	●	●	●	○	○
	3.1 Establishment of linkages with primary health care (PHC), community participation efforts and water related diseases units, especially those involved in rural and underserved areas.	●	●	●	●	●	●	●
	3.2 Initiating and developing the water supply and sanitation components of training programmes for PHC and community workers.	●	●	●	●	●	●	○
	3.3 Strengthening programmes concerned with health aspects of housing and human settlements.	○	○	●	●	○	●	○

- High level of activity
- Moderate level of activity
- Low level of activity

TABLE I (continued)

Programme 5.1.3 RECOGNITION AND CONTROL OF ENVIRONMENTAL POLLUTION AND HAZARDS

Objectives: To promote and cooperate with Member States in the development of recognition and control of environmental conditions and hazards, in collaboration with international agencies concerned.

Targets for period 1978-1983	Technical cooperation with Member States in carrying out the following activities	AFR	AMR	EMR	EUR	SEAR	WPR	HQ
<p>1. Countries will establish policies and institutions for the prevention and control of environmental pollution and hazards and the development of requisite manpower.</p> <p>2. A fully operational international cooperative programme for chemical safety will have been established among Member countries. Countries will have initiated systems to utilize the results in their national environmental health protection programmes.</p> <p>3. Countries will have initiated health-oriented environmental monitoring systems.</p>	1.1 Development of national environmental protection programmes including legislative aspects, institutions and public education.	●	●	●	●	●	●	●
	1.2 Strengthening of manpower at all levels in all related fields.	●	●	●	●	●	●	○
	2.1 Establishment of international programme for chemical safety to include development of administrative arrangements and promotion of appropriate methodology; preliminary health risk assessment of toxicity particularly of new chemicals and products and a reduction of the backlog relating to chemicals already in widespread use; in-depth evaluation of effects of chemicals, response in emergencies.	○	○	○	●	○	●	●
	2.2 Support to national programmes for assessment and control of chemical hazards including information systems and contingency plans for emergencies.	●	●	●	●	○	●	●
	3.1 Promotion of national participation in GEMS programme.	●	●	●	●	●	●	●
	3.2 Strengthening of comprehensive national environmental health monitoring networks.	●	●	●	●	○	●	○

● High level of activity

● Moderate level of activity

○ Low level of activity

TABLE I (continued)

Programme 5.1.3 (continued)

Targets for period 1978-1983	Technical cooperation with Member States in carrying out the following activities	AFR	AMR	EMR	EUR	SEAR	WPR	HQ
4. The major impacts on human health arising from technological developments will have been identified and assessed.	4.1 Development of guidelines relating to the assessment of the impact on human health of environmental changes.	●	●	○	●	○	●	●
	4.2 Strengthening of national capacity to conduct environmental health impact assessment studies.	●	●	●	●	●	●	●
5. Countries will have initiated environmental pollution control programmes relevant to their specific national requirements.	5.1 Water	●	●	●	●	●	●	○
	5.2 Air	●	●	●	●	●	●	○
	5.3 Soil	○	●	●	●	●	○	○
	5.4 Noise	○	○	○	●	○	○	○
	5.5 Radiation	○	●	○	●	●	○	○

- High level of activity
- Moderate level of activity
- Low level of activity

TABLE I (continued)

Programme 5.1.4 PROMOTION OF FOOD SAFETY

Objective: To promote and cooperate with Member States in the development of food safety programmes, in collaboration with international agencies concerned.

Targets for period 1978-1983	Technical cooperation with Member States in carrying out the following activities	AFR	AMR	EMR	EUR	SEAR	WPR	HQ
1. Countries will strengthen their capabilities for effective planning and management of food safety programmes.	1.1 Development of national food safety programmes emphasizing education of the public and including assessment, legislative aspects, administration, surveillance and laboratory services.	●	○	●	●	◐	◐	◐
	1.2 Improvement and simplification of the work of the Codex Alimentarius Commission including the promotion of the utilization of its results.	○	○	○	●	○	◐	●
	1.3 Development of guidelines relating to mass catering, vending and other aspects of food safety.	○	◐	○	●	○	◐	○
	1.4 Strengthening the assessment and evaluation of health risks due to food additives and contaminants.	○	○	◐	●	○	○	●
2. Countries will strengthen the facilities and personnel necessary for their food safety programmes.	2.1 Development and strengthening of information and monitoring systems and analytical capability to fulfil national needs.	○	○	●	●	○	○	◐
	2.2 Promotion of manpower development at all levels in related fields.	◐	◐	●	●	◐	◐	○

● High level of activity

◐ Moderate level of activity

○ Low level of activity

III. MANAGEMENT CONSIDERATIONS

1. General

1.1 Implementation of the Medium-Term Programme for Promotion of Environmental Health depends in large measure on action by Member States. The Organization collaborates with Member States, helps where needed and where it can, and stimulates action. In doing so it uses a number of strategies to eliminate deficiencies revealed by an evaluation of its previous long-term programme on environmental health.¹ Some of these strategies are not new, some are improvements of existing ones, while others are intended to adapt WHO's collaboration with Member States in the environmental field to the changes that have occurred over the last decade.

1.2 The Director-General's report on WHO's human health and environment programme - progress and future development,² approved by the Twenty-Ninth World Health Assembly (May 1976) in resolution WHA29.45, lays down the broad blueprint for present and future action. Of immediate relevance and importance at that time was the strengthening of WHO's capabilities to fulfil its expected and legitimate role in the environmental health field. In the light of needs in Member States, the following objectives are of utmost importance in achieving this aim:

- (i) to improve the effectiveness of resources available for technical cooperation;
- (ii) to make plans for activities that respond to global concerns and priorities;
- (iii) to improve the integration of environmental health within other WHO programmes by means of joint planning, activities and services; and
- (iv) to ensure that environmental health programmes effectively lead rather than merely respond to needs as they arise.

1.3 The first of these management objectives involves WHO's methods of cooperation at the country level, the utilization of national experience, the pattern of utilizing the Organization's professional staff, and measures to make activities carried out at the various levels of the Organization (country, regional, global) mutually supportive. Cooperation at the country level is discussed in section 2 below, the use of national expertise in section 3, and the utilization of WHO's professional expertise in section 4. As regards the integration of resources at different organizational levels within WHO, measures have been taken to foster the greater use of interdisciplinary resources available at the global level.

1.4 In section 5, the total resources available to the Organization are reviewed, inter alia, in respect to the Organization's capacity for effectively engaging in technical cooperation for the promotion of environmental health. This review shows clearly that increases are needed.

1.5 Making plans for activities that respond to global concerns and priorities requires a new approach to the utilization of global and regional centres, a subject discussed in section 3 below. On the other hand, effective environmental health programming depends on careful monitoring, information feedback and evaluation, as discussed in section 6, as well as coordination within and outside the Organization, as described in section 7 below.

2. Methods of cooperation at country level

2.1 Effective national environmental health programmes depend on a national policy, resources, enabling legislation, coordination between the national agencies involved, manpower to plan, operate and inspect, and integration with national plans for development. Recognizing the

¹ See WHO Official Records, No. 193, 1971, pp. 96-102.

² Document A29/11.

importance of these problems, the Twenty-seventh World Health Assembly (May 1974) in resolution WHA27.49 called on Member States "to make health-oriented environmental action an essential part of all relevant major national programmes for social and economic development", and "to strengthen [their] environmental health functions, manpower and services in health and other agencies". In resolution WHA27.50, the Health Assembly also requested the Director-General "to collaborate with and provide assistance to the various national . . . programmes, agencies and ministries, as appropriate, concerned with the improvement of the human environment".

2.2 The objective of WHO's collaboration with Member States is to strengthen the responsibility and capacity of health agencies and to promote health-oriented environmental action by all other agencies involved. For instance, national planning for water supply and wastes disposal often requires collaboration with ministries of public works, finance, or planning. On the other hand, the Organization's cooperation in the control of pollution of air, water and food often extends to environment protection agencies and ministries of agriculture. The obvious need for this flexible approach stems from the multidisciplinary and multi-agency nature of national environmental health activities, and the need to relate them adequately to other developments, programmes and projects forming part of national development plans. The International Drinking-Water Supply and Sanitation Decade has highlighted this need, and the Organization is responding by entering into arrangements with other agencies under which it will depend heavily on the UNDP resident representatives for interacting with the national agencies responsible for preparing overall national plans and allocating resources, and for the operation of the considerable variety of programmes for water supply and sanitation. To orient adequately this new type of cooperation to health needs and priorities, WHO will provide technical support to the resident representatives through its country and regional staff.

3. Utilization of national expertise

3.1 Optimal utilization of national experience will enhance implementation of this programme. Arrangements are therefore made to use this expertise, and a number of activities are included in the programme to bring about such utilization. The general approach is to rely on contributions made by national institutions or other national entities to technical cooperation as well as to activities of global concern. An implicit objective of these activities is to promote technical cooperation between developing countries.

3.2 To elaborate the above, three examples are worth mentioning:

(i) The Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) has been a positive experience in technology development and transfer, and was a factor in the decision of the Regional Committee for the Western Pacific to establish the Western Pacific Regional Centre for the Promotion of Environmental Planning and Applied Studies (PEPAS). The Regional Committee defined the role of PEPAS (a) to promote and facilitate effective collaboration between institutions and scientific and technical personnel in the Region, and (b) to support efforts to develop self-reliant national institutions. The African and Eastern Mediterranean Regions are currently considering the establishment of similar regional centres.

(ii) One of the factors constraining the preparation, formulation and implementation of national programmes for the International Drinking-Water Supply and Sanitation Decade is the lack of information on suitable technologies in terms of planning and design of physical facilities, operation, maintenance and general management, and methods for motivating the community and mobilizing its participation. Much of such information is available in certain countries, but mechanisms for transferring it are lacking. Therefore the programme presented in this document indicates activities to strengthen national centres or other national entities and interlink them, making use of the regional centres referred to under (i) above and also of the resources available in the international collaborating centre for community water supply, located in the Netherlands and substantially supported by the host Government. The object of this approach is to set up mechanisms for technical cooperation, mainly among developing countries, as an integral part of WHO's efforts within the framework of the International Drinking-Water Supply and Sanitation Decade.

(iii) In respect to the second major priority presented in this medium-term programme - the prevention of chemical hazards - the operational approach is to rely on the assumption of specific assigned tasks by national participating institutions (supported where necessary), programme planning and coordination being assumed by the WHO Secretariat in full conformity with resolution WHA31.28 adopted by the Thirty-first World Health Assembly in May 1978.

4. Pattern of staff utilization

4.1 Technical staff is the most precious resource the Organization has at its disposal. The optimal use of this resource is an imperative. It will be recalled that the Director-General pointed out to the Twenty-ninth World Health Assembly in May 1976,¹ that WHO's collaboration with governments will be enhanced through the appropriate utilization of the Organization's environmental health staff resources and the assumption of greater responsibilities by national project personnel. No standard approach is applicable. Much will depend on the stage of national manpower development, the contribution to environmental health of each of the various national agencies involved, the extent to which WHO staff can contribute to coordination in the environmental field, and the technical level of the staff assigned to collaborate with WHO's personnel.

4.2 Emphasis will be given to utilization of staff in relation to development of national plans and programmes. This emphasis, as contrasted with assignments restricted to technical projects, should increase the impact of the limited resources of the Organization on environmental health problems.

4.3 As national expertise becomes available, it is anticipated that the short-term assignment of international experts will replace the long-term. In one or two regions this is already the case, and this trend is expected to continue. In some situations WHO staff may be more effective if available to several countries simultaneously, thus enabling the Organization to respond better to urgent needs in fields of greater specialization. This approach to staff utilization would enable the Organization to collaborate with governments at shorter notice and at critical times, and to follow up activities better. It is expected to be particularly effective where the emphasis of WHO's cooperation with Member States is on planning and programming in preparation for the International Drinking-Water Supply and Sanitation Decade, in the development of comprehensive environmental health plans, in institutional development, and in the control of pollution and of food safety.

4.4 WHO staff development programmes will adapt the expertise of WHO's manpower to the changing nature and complexity of environmental health, to the particular aspects involved in cooperation on national planning and programming (economic, financial and managerial aspects), and the priority given to the Organization's function vis-à-vis other international and bilateral agencies and their potential contribution to the field of environment (particularly the International Drinking-Water Supply and Sanitation Decade). Clearly, the need exists to develop and strengthen WHO staff expertise in planning, management, economics and finance, in addition to epidemiology, toxicology and the other biomedical sciences involved.

5. Resources

5.1 At the national level

5.1.1 Resource constraints are of different patterns and degrees as between the different regions or between Member States in the same region. Some have developed self-sufficiency in manpower expertise, but lack material and financial resources; some have achieved adequate manpower and material resources but face financial constraints; some have financial resources but have yet to develop the other two resources. All Member States, however, lay stress on the maximum use of national expertise and resources as the first requisite in their programme planning.

¹ Document A29/11.

5.1.2 Manpower development is a critical factor in implementing environmental health. It requires the strengthening and expanding of education and training facilities in the countries as an integral part of programme development. For example, to meet the objectives and goals for the International Drinking-Water Supply and Sanitation Decade requires a determined acceleration of manpower development as soon as possible. This can best be demonstrated by the experience of the Region of the Americas, which has achieved substantial progress in the extension of water supply services over the past two decades, attributed in large measure to the accelerated training of engineers during the 1950s, i.e., well in advance of the commitment made by the Member States of the Region to proceed with expanded programmes in this field under the Charter of Punta del Este (1961).

5.2 At the international level

5.2.1 As regards the financial resources of WHO, allocations from the regular budget have already been determined by the Thirty-first World Health Assembly (May 1978) for the financial years 1978 and 1979, and plans are already being made for the biennium 1980-1981, as shown in Tables II and III.

5.2.2 The financial resources available in the regular budget of the Organization have severely limited its ability to respond to requests both for cooperation with Member States and for global level activities. Fortunately, substantial additional resources have been available from UNDP, UNEP and the World Bank for the years 1978-1979; for the future, increases in both the regular budget and extrabudgetary resources are critical if the funds available are to be commensurate with the level of activities proposed in this medium-term programme. Of particular importance are the capacity of WHO to respond to the challenge presented by the International Drinking-Water Supply and Sanitation Decade, and the need to strengthen the programme on safety of chemicals, i.e., the two major priorities of the present medium-term programme:

(i) Resources for cooperation in the International Drinking-Water Supply and Sanitation Decade. Of the funds shown in Table II, about 60% are allocated to activities, most of them related to the International Drinking-Water Supply and Sanitation Decade (programme 5.1.2 and part of programme 5.1.1). It is reasonable to assume that the current level of funding will need doubling during the six-year period 1978-1983. The additional funds will be critical with respect to the Organization's technical cooperation in the planning and programming for the Decade and in the strengthening of national infrastructures, including manpower. In section 4 of this chapter, reference is made to a more flexible use of staff resources for this type of technical cooperation; a substantial part of any additional funds that become available will be allocated to this type of activity. While it is expected that extra-budgetary funds will materialize, additional resources from the regular budget will be required to attract the external contributions. In this respect the numerical increases in the regular budget as shown in Table II include cost increases and are not therefore equal to programme increases. On the other hand, while Table III shows a forecast of extrabudgetary resources it should be recognized that the amounts actually available are normally higher than expected in the forecast because of the different budgetary cycles governing their allocations to WHO programmes.

(ii) Resources for activities to prevent chemical hazards. This work will require a substantial increase in the level of funding, both in respect of technical cooperation with Member States (the WHO regular budget and UNDP are seen as the major sources of funding here) and in the operation for evaluation of safety, which involves an input from national participating centres, as discussed in section 3.2, subparagraph (iii) of this chapter. The latter depends in large measure on resources from UNEP and from Member States willing to support the programme through resources allocated to their own national institutions that are participating in the programme. This should enable them to assume specifically assigned tasks as part of the international programme. In addition, monetary contributions from governments will also be necessary to provide for planning and coordination of those tasks, and for logistic and technical support. It is envisaged that the current level of funding (1978) needs at least doubling.

TABLE II. RESOURCES OF THE WHO REGULAR BUDGET
FOR THE PROMOTION OF ENVIRONMENTAL HEALTH

Programme	1978-1979	1980-1981	1982-1983 ¹
	US\$	US\$	US\$
5.1.1 Programme planning and general activities (including environmental health planning and management)	6 854 000	8 210 800	8 693 000
5.1.2 Basic sanitary measures	6 798 000	10 446 200	11 932 000
5.1.3 Recognition and control of environmental hazards	3 014 600	4 623 000	5 236 000
5.1.4 Food safety	2 085 600	2 877 000	3 294 000
TOTAL - WHO Regular Budget	18 752 200	26 157 000	29 155 000

¹ The figures for the 1982/83 biennium are based on a projection of the 1980/81 estimates by 5% for headquarters, 12% for AMRO and the best estimates provided by all other regions.

TABLE III. BUDGET FROM OTHER SOURCES FOR THE PROMOTION
OF ENVIRONMENTAL HEALTH (INCLUDING PAHO'S REGULAR BUDGET)

Programme	1978-1979	1980-1981
	US\$	US\$
5.1.1 Programme planning and general activities (including environmental health planning and management)	9 452 500	7 823 000
5.1.2 Basic sanitary measures	18 719 300	11 759 400
5.1.3 Recognition and control of environmental hazards	6 833 300	4 484 000
5.1.4 Food safety	1 339 800	747 100
TOTAL	36 344 900	24 813 500

6. Monitoring, information feedback and evaluation

6.1 Since the implementation of this medium-term programme depends to a large measure on action by Member States, government plans should make provision for monitoring, feedback and evaluation of the programme, and for the collection and dissemination of relevant data and information. WHO cooperates with requesting Member States in planning and carrying out national environmental health programmes, and it monitors and evaluates on a continuing basis the efficiency, effectiveness and performance of its own contribution. In the medium-term programmes for the regions and headquarters, output indicators have been established wherever possible, and they will serve to evaluate the progress, year by year, of contributions to country programmes in quantitative and qualitative terms. For such evaluations, the Organization will make use of regular feedback information supplied by government and field staff, and of up-dated programme and projects profiles. In this way it will be able to analyse findings, detect promptly the need to amend or reorient existing programmes, and establish and promote new priorities in the light of countries' requirements.

7. Coordination

7.1 The implementation of this medium-term programme requires coordination, both internal and external, in all technical aspects and at all administrative levels. In this particular instance the aim of coordination is to ensure:

- (i) that the programmes make a full contribution to health; and
- (ii) that other programmes with environmental aspects are oriented towards or made compatible with health policies and objectives in Member States.

7.2 A full report was submitted to the Twenty-eight World Health Assembly (May 1975) on the coordination of programmes and action in the field of the environment;¹ it dealt particularly with coordination within the United Nations system but also with other intergovernmental organizations and some nongovernmental organizations. Information on this subject was updated in 1976.² However, there are three specific developments in coordination which should be highlighted.

7.3 A particular need for coordination is posed by the International Drinking-Water Supply and Sanitation Decade, since the effort required at the international level for cooperation in achieving the Decade's targets will involve many aspects, in addition to those of particular concern to WHO. There is a need for programmes for the Decade to be closely related to those for overall development, nationally and internationally, and at the same time it must be ensured that they meet priority health needs. As indicated in section 2 of this chapter, an agreement is being worked out with UNDP and with other specialized agencies, including the World Bank, for cooperation action first and foremost at the country level, using the UNDP resident representatives as a key element in communicating with the broad spectrum of government agencies involved and, in addition to promote and coordinate action at the regional and global levels both within the United Nations system, with official development aid agencies (ODAs), and with regional and multilateral funding institutions in support of country level action.

7.4 An example of coordination with nongovernmental organizations is the joint sponsorship by WHO and ICSU/SCOPE³ of an International Scientific Group on Methods for the Evaluation of the Effects of Chemicals, which has been given major functions in developing and proposing methods for the testing and assessment of the risks of chemicals, good laboratory practices,

¹ Document A28/27.

² Document A29/11, paragraph 3.5 (pp. 28-30).

³ ICSU/SCOPE: International Council of Scientific Unions/Scientific Committee on Problems of the Environment.

the study on the effects on man of chemicals in the environment, and the monitoring of such chemicals. The work of the Group is an essential input into the proposed international programme for safety of chemicals.

7.5 . Coordination within the Organization is being strengthened by a number of activities in regions and at the global level to ensure linkage of the programme for promotion of environmental health with other programmes, such as primary health care, country health programming, water-related diseases, certain noncommunicable diseases, and health manpower development.

8. Special problems

8.1 Some problems may require the adoption of special implementation strategies. One example involves the survey, planning and development of environmental health and control programmes as part of the physical and/or socioeconomic development of a subregional area (e.g. the Andean region in the Americas, the Sahel region in Africa, or newly independent countries). In such instances, WHO may join with the United Nations and other agencies of the United Nations system and assign staff members to work in concert.

8.2 Many environmental health problems are of a multinational character. WHO is increasingly engaged in collaborating with governments in relation to pollution of transboundary rivers and regional seas.

9. Conclusion

9.1 This medium-term programme presents a major challenge to WHO and to its Member States. For the International Drinking-Water Supply and Sanitation Decade, for the expanded work on safety of chemicals, and for other components of the programme in environmental health, substantial additional resources in terms of financial commitment and trained manpower, both in countries and within the Organization, will be necessary in order to ensure the successful implementation of the activities planned.

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