

ENVIRONMENTAL HEALTH MANAGEMENT IN EMERGENCIES

established action plans for disaster preparedness and response, within a global programme framework, and with support from the more developed regional programmes. Training and educational materials as well as staff of AMRO and also of EURO have been used to support the other regions within the scope of interregional collaboration.

The WHO global and regional programmes are gradually increasing their involvement in the promotion of disaster preparedness in Member States, in the development of training programmes and training materials and in support of national training, in establishment of situation assessment capacity and information and communication networks, in production of guidelines and materials, in coordination of disaster activities together with other UN organizations as well as in emergency missions.

4. OBJECTIVES

The objectives of WHO's emergency preparedness and response programme are:

- to promote and strengthen emergency preparedness in the Member States;
- to provide timely and appropriate response to emergencies in collaboration with Member States and other organizations.

5. STRATEGIES

To reach the objectives, not only has the emphasis gradually shifted from the provision of health relief to promotion of preparedness through training and to strengthening of national disaster management but, also, the approach is changing towards integration of emergency preparedness and response in the Organization's technical programmes and to utilization of the whole Organization's capacities in a coordinated fashion.

The focus of WHO's programme remains on developing countries. While many developed countries have been able to introduce effective preventive measures to counter the threats of disasters or to mitigate their consequences, the developing countries face serious difficulties in introducing preventive measures which often require considerable resources. Furthermore, the lack of infrastructure and management capacity, as well as the existence of communication and logistics problems, aggravate the effects of disasters by preventing prompt national and international relief.

In order to provide adequate support to the Member States promptly and as part of WHO's general programmes, there is a continuous need to improve the capacity of the Organization at all levels and to streamline and build up its emergency management capacities.

Sharing of experiences through technical cooperation between Member States, together with WHO and other UN or bilateral and nongovernmental organizations, is one of the attempts to make the best use of limited resources and gradually strengthen the capacities of the Member States for disaster response. Integration of the emergency preparedness and response programmes in the countries' regular health programmes and infrastructures, as well as involvement of the community, are basic principles of WHO's strategy for emergency management.

6. PROGRAMME ACTIVITIES - COUNTRY PROJECTS.

WHO is involved in various operations in areas and in countries where emergency action is needed. The continent of Africa remains the highest priority, due to a multitude of disasters such as drought, famine, epidemics combined with man-made and economic problems. Support is given also to rehabilitation of health services and infrastructures following the initial involvement in immediate relief operations, linking emergency response to national development programmes. Country and regional training programmes are undertaken, with global and interregional support, in cooperation with other organizations and institutions. A network of collaborating centres provides a considerable resource, which is being expanded.

The services of long and short-term consultants and temporary advisers are extensively used, both at Headquarters to cope with the increasing work-load, and in the field to meet the demands by governments and international organizations for technical advice on assessment of disaster situations and health needs, in planning and in the implementation and evaluation of health relief operations. Examples of these situations are given by WHO involvement in the emergency operations in Afghanistan, Angola, Bangladesh, Ethiopia, Islamic Republic of Iran, Mozambique and Sudan. In all these, WHO plays a central role in health emergency preparedness planning, training and management, which are integral parts of the emergency response. Similarly, each of the activities has been designed to lead to strengthening of national capacities for health information, epidemiological surveillance, health services, etc.

Summary of the main country projects:

6.1. Afghanistan

WHO was centrally involved in the establishment of the Afghan refugee health programme in Pakistan during 1982-1986, after which UNHCR assumed responsibility for continuing support to the well-established programme. Since early 1988, WHO has actively participated in joint UN agency planning for preparation of the Afghan refugees' return to their country. Particular emphasis for WHO is on the recovery and rehabilitation within Afghanistan, a country among the least developed even before the 1970s, which has suffered further devastation in the past decade. A process of situation and project review has been initiated in close consultation with the technical divisions at WHO Headquarters and with the WHO Eastern Mediterranean Regional Office (EMRO). Planning has been done in conjunction with UNHCR, UNICEF, the League of Red Cross and Red Crescent Societies and other non-governmental organizations, under the overall coordination of the UN Coordinator for Afghanistan, assigned by the UN Secretary-General. A projected programme of technical assistance and support was incorporated in the UN Secretary-General's appeal for Humanitarian and Economic Assistance relating to Afghanistan. Major components and programme activities in the health sector include:

- rehabilitation and strengthening of health facilities;
- assessment of health manpower needs for staffing of the health services training, retraining and recruitment of health personnel of all categories;

- epidemiological surveillance, disease prevention and control;
- re-establishment of the logistic and supportive mechanisms required to sustain the restored health services.

The programme will technically support the relevant authorities and implementing agencies in the enormous task of rebuilding, establishing rational and feasible policies, strategies and plans for implementation, and strengthening the capacities of communities, district and national authorities to plan and manage the activities of the health sector. Through this process of recovery and rehabilitation, the activities can then progressively be directed to development of an operational health care delivery system to meet the health needs of the Afghan people. The priority projects, to be implemented in coordination with NGOs, particularly those with cross-border health programmes, need to be made operational as soon as possible in relatively settled areas and in the refugee areas before the repatriation process starts. Attention needs to be focussed on:

- procurement and pre-positioning of medical supplies and equipment;
- health manpower development;
- rehabilitation of the disabled;
- survey and assessment of needs.

A unit for programme management has been established in WHO/HQ, which has the responsibility to coordinate WHO's inputs within the Organization, and to coordinate with the other UN and bilateral or non-governmental organizations. A unit for the same purpose is being established in Pakistan for the operations which will be based in Pakistan.

6.2. Angola

In October 1987 the Government of Angola requested the Secretary-General of the United Nations support in alerting the international community to the grave situation existing in the country, and to provide emergency assistance for the urgent humanitarian requirements of the affected population. Following the recommendations of a subsequent inter-agency mission to Angola, WHO started a project for strengthening of the health sector emergency management capacities. Due to the serious insufficiency of national health personnel trained to deal with the numerous health problems affecting the country, and taking into account the continuous deterioration of the situation within the country, the emphasis of the project was laid on low-cost solutions, affordable by the Government, and capable of being implemented by existing staff at national and provincial levels. The objectives of the project are therefore:

- training nationals in the management of emergency health situations;
- assisting them in the planning and programming of emergency operations;
- improving information, education and communication activities.

In this framework, assistance to the Ministry of Health is given for:

- retraining provincial health personnel (through seminars, workshops and in-service training) to provide them with the knowledge and skills necessary to enable them to assist affected and displaced persons more effectively by making the best use of available resources;

- assessing the health status of affected and displaced persons, with a view to identifying their immediate needs and to planning and monitoring emergency health activities.

Another example of WHO's emergency assistance to Angola has been the supply of drugs to assist the government in controlling the cholera epidemics from 1985 through 1988.

6.3. Bangladesh

During 1987-88, preparations were made for studies on flood management in Bangladesh, and for WHO's support in strengthening the health sector disaster preparedness. Before these plans materialized, disastrous floods struck the country in August/September 1988. WHO participated in the UN Inter-Agency Assessment Mission following the floods in September 1988, with the objective of preparing a preliminary report on the immediate impact of the floods. Following this mission and the request by the Government of Bangladesh for WHO's support in the field of health, a WHO team, together with the Government, finalized the health sector emergency plans which were included in the UN Secretary-General's international appeal issued in November 1988.

The Government of Bangladesh/WHO Programme Proposal for Health Sector Disaster Preparedness and Response summarizes the health impact of and response to the 1988 floods and outlines the disaster policy of the Government of Bangladesh and the underlying principles of the plan. The programme details the objectives and strategies as regards:

- health planning, management and coordination support;
- reconstruction and rehabilitation support;
- training of health personnel;
- community awareness and participation; and
- research and evaluation.

WHO is in the process of negotiating the external resources for implementation of the programme during the next three years. A follow-up mission has been despatched to the country, so that the implementation could start as soon as possible prior to the next mission period in 1989. Although the cumulative experience gained from recurrent floods has proved essential in limiting the loss of lives during and immediately after the 1988 floods, an unprecedented and long-term effort is required to strengthen the health sector's capabilities to prepare for and respond to disasters. This effort, which will have to mobilize national resources at all administrative levels, aims at achieving national self-reliance with regard to health emergency preparedness and response and furtherance of national health development.

6.4. Ethiopia

WHO support to national relief efforts began with a mission to assess emergency needs in December 1984. This provided important information for the March 1985 Conference on the Emergency Situation in Africa organized by the United Nations Office for Emergency Operations in Africa (OEOA) as well as for the bilateral aid agencies and nongovernmental organizations already active within the country.

A WHO Health Adviser was subsequently assigned to the Office of the United Nations Secretary-General's Special Representative in Addis Ababa in 1985. The adviser was responsible for supporting the Government's health

coordination role vis-à-vis the various United Nations agencies, bilateral donors and nongovernmental organizations. The adviser also worked with the Government to monitor the health situation, to define external needs in more standardized fashion, and to develop proposals for possible support by the donor community. A guideline for all agencies to follow was also produced. This type of WHO support was gradually phased out in the course of 1986, with the improvement of the Government's own emergency management capacity.

More recently, following the appeal in November 1987 by the Government of Ethiopia for international assistance in the recurring drought and impending famine situation in the country, and for overall health sector assistance, WHO resumed the support. As a first step in formulating the overall programme and to discuss the strategies and activities, a seminar was organized in March 1988.

The need emerged for the establishment of simple health facilities and services at food distribution centres, the sites where thousands of families came to collect their rations. Health facilities were seldom available at these sites and, when they existed, they were all ill-equipped in terms of physical and human resources to deal with emergencies. The WHO project therefore aimed at meeting the Government needs in:

- intensive training of health manpower in management of health aspects of drought/famine;
- support for health services to be developed at food distribution sites.

More recently, with the improvement of the overall situation, the immediate objectives of the project have changed. However, preparedness for future droughts requires strengthening of the national capacities, as outlined, and the activities will continue. The training activities are organized at different levels, for example:

- national workshop for regional supervisory teams for formulation of training programmes on management of health aspects of the emergency;
- regional seminars on the management of health aspects of drought/famine emergencies;
- training workshops for local health staff at food distribution sites.

A major feature of the project is the support to regional and local level operations in terms of supplies such as vehicles for the regional supervisory teams, medical equipment for temporary health units and field equipment for the food distribution sites.

Materials are provided for updating and printing an emergency feeding manual, as well as financial support required for the supervisory teams and health personnel assigned to the temporary health units.

6.5. Islamic Republic of Iran

Continuing the WHO tradition of collaboration with other UN agencies in refugee health services, previous examples of which are Thailand, Somalia and Pakistan, WHO has, since March 1987, provided a health adviser to UNHCR in a project supporting more than two million Afghan refugees in the Islamic Republic of Iran. Since the beginning of the refugees influx, the Government has adopted the policy of integrating the health services for Afghan Refugees in the national health system as well as providing the refugees with health

services on an equal basis with Iranian nationals. The objective of the Health Project for Afghan Refugees is therefore to assist the Government, which is the implementing agency, in building up a primary health care system within the framework of existing referral and supply networks, and upgrading already existing primary health care facilities.

The target population of the project has been so far the refugees in spontaneous rural settlements in Khorassan province and in urban slums of Zahedan district, targeted for assistance as the most needy part of the refugee population, with no previous access to basic primary health services. The spontaneous settlements being covered, the emphasis of the 1988 Health Programme has shifted towards urban refugee concentrations and, moreover, to newly arrived Kurdish refugees settled in Bakhtaran and Kurdistan provinces who will also be covered under the 1989 Health Programme. The task of the WHO/UNHCR Health Coordinator, who communicates directly to the Ministry of Health, consists, inter-alia, of:

- planning, implementing and monitoring of the health programme for refugees, within the framework of the national health programme and based on the Ministry of Health plan for expansion of primary health care services to refugees;
- establishing of information systems for the assessment and surveying of the health status and condition of the refugees;
- establishing of coordinating mechanisms between the Government, United Nations and other agencies, and between UN organizations and other agencies involved in health programme support in Iran.

The programme has a potential to provide models for similar refugee health programmes and applications for general health service development in countries with similar health conditions.

The training of health workers, which is one of the features of the programme, may have a significant impact in future once the refugees return to their country.

6.6. Mozambique

In response to the appeal made in March 1987 by the Government of Mozambique to the International Community through the Secretary-General of the United Nations, which included a request for technical assistance in the health sector, WHO, in cooperation with the Ministry of Health, elaborated a two-year rehabilitation programme for the health sector, the first step of which was the creation of an Emergency Unit at WHO/Maputo.

After preparatory missions in the course of 1987, the WHO project started in October 1987 with the first consultant assigned to the Emergency Unit with the tasks of assisting the Government in:

- assessing the emergency health situation and needs in Mozambique, establishing a surveillance of health and nutritional status, and monitoring of the emergency health activities;
- establishing coordination, standardization and monitoring of emergency health activities;

- strengthening the national capacities for emergency preparedness and management.

As part of the activities developed, the first training programme on emergency management was organized in December 1987. In the course of the second and third terms of consultancy, a plan of action of trilateral assistance for Emergency Health Management has been prepared and steps taken towards implementation. The Heads of CRDS (WHO Regional Health Development Centre) and the Department of Planning of the Ministry of Health have participated in the drafting of the project, where particular attention was given to certifying the pertinence of the project in the Mozambique emergency setting and within the national strategy for health. The project, expected to last three years, covers the following areas of activity:

- advice to the Ministry of Health and to the national authorities in charge of emergency relief and rehabilitation;
- upgrading and support to the functioning and training of staff for the Health Information System;
- strengthening of CRDS, including improvement and upgrading of premises, equipment and materials and recruitment of part-time and full-time staff;
- support to the emergency preparedness and response district programmes.

.7. Sudan

In 1985-88, WHO supported the Government of Sudan through a project for emergency relief and rehabilitation of health services as part of the UN concerted relief programme. The project was initiated by WHO in cooperation with the Sudanese Ministry of Health in response to the serious drought and famine conditions encountered in 1985. A WHO Senior Health Coordinator was appointed along with a Medical Officer who provided project continuity until May 1988. Continued attention was placed on the importance of interagency coordination in health relief, which was reflected by the formulation of a Health Coordination Protocol, agreed upon in 1986 by both the Ministry of Health and the non-governmental organizations working in the country. Hospitals and health structures were surveyed in drought and refugee-affected areas, and the assessment provided the basis for an international appeal. The assistance thus obtained was used to carry out structural rehabilitation of hospitals in ten districts of Sudan while plans were made for the rehabilitation of all district health facilities.

The project also aimed at strengthening of the Government's emergency preparedness and response capacity in the health sector. A WHO/EMRO Subregional Workshop on the Health Aspects of Emergency Preparedness and Management was organized in 1986 in Khartoum. The evaluation of the project in December 1987 stressed the importance of combined support to the proposed new activities.

As regards 1988 activities, a workshop on Health Relief to the Displaced was organized in March 1988 to discuss Standard Health Guidelines for use in the displaced and refugee population. These guidelines have now been finalized. WHO assisted the Ministry of Health in the management of the flood disaster of early August 1988. This provided an opportunity to assess the health sector's capacity for prompt response to a sudden natural disaster.

Experience was also gained in establishing a workable internal emergency management structure for the Ministry of Health. However, the flood emergency also demonstrated the need for urgent attention to appropriate technical and managerial training in emergency preparedness at all levels.

The particular situation of Sudan, where the already over-extended health infrastructure is confronted by chronic food insecurity, major international and cross-border displacements, civil strife and seasonal epidemics, calls for special "emergency" policies, plans of action, guidelines and training. It is this awareness and the resulting actions to institutionalize emergency health protocols within existing programmes and administrative structures that will ultimately strengthen the preparedness and response capacity of the health sector.

To further strengthen this management capacity at all administrative levels, WHO has recently prepared a two-year project proposal for 1989-1990 aiming at improving managerial and technical capacity for emergency response by developing appropriate preparedness and response policies and plans of action, both at central and regional levels. A fundamental component of the proposal is the introduction of an emergency preparedness/response awareness in the regular and ongoing education of health workers as well as for programme managers at all levels.

6.8. Other country activities

Other examples of WHO's involvement at country level are given by the activities in Botswana, China, India, Indonesia, Lebanon, Madagascar, Mali, Malawi, Mauritania, and Somalia.

- (a) Botswana - Botswana is an example of WHO's support for emergency preparedness. In this country, which had less need for emergency relief, the Organization's collaboration has been directed towards strengthening the health infrastructure through training in emergency preparedness, in response to government initiatives. In September 1985, the Medical and Dental Association of Botswana, in collaboration with the Ministry of Health, devoted its Ninth Annual Congress to emergency preparedness and management. The result was one of the first meetings of its kind in the African Region, followed by another health sector conference in July 1986 and a multisectoral Workshop in August 1987 organized by the Ministry of Health, the latter attended also by observers from neighbouring countries. Following the success of these initiatives, the Government is expected to set in motion a multisectoral preparedness planning process in which health is an important component.
- (b) China - During 1987/88, preparations were made for collaboration with China, and the first mission to China took place in December 1988, in order to plan a visit of Chinese officials to WHO and to the collaborating centres in 1989, to be followed by a workshop in China in 1989.
- (c) India - WHO has participated in the development of training programmes for emergency preparedness in India, supporting a workshop in Nagpur, 1986, and another one in Aurangabad, 1987. Plans, to be materialized in 1989, have been made for further training, and for studies in the management of past disasters. Institutions are being identified which could provide technical resources and inputs to WHO's emergency programmes at global and regional levels.

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- (d) Indonesia - WHO provided support to a national workshop in disaster preparedness, held in Jakarta in 1987, with participation from several countries in South-East Asian (SEARO) and Western Pacific (WPRO) regions. Consequently, the Government has drafted national plans for emergency preparedness and response, which are attracting bilateral and multilateral support.
- (e) Lebanon - Through the years, WHO has assisted Lebanon in the recovery of the health sector. Since mid-1988, coordination of the assistance has improved, particularly between WHO and UNDRO.
- (f) Madagascar - Support, including technical advice and supplies, was provided by WHO to the Government of Madagascar in 1987-88 for the control of malaria epidemic in the country. A plan of action was prepared by the Malaria Programme at WHO Headquarters, which EPR will submit to UNDRO for a donor appeal, in view of the large extent of the epidemic, affecting over 50% of the population.
- (g) Malawi - Various WHO missions to Malawi were organized in 1987-88 in view of establishing an overall disaster preparedness and management organization in the country. A multisectoral workshop was held in September 1988 with support from several UN organizations. The main problem Malawi is facing has been the continuous influx of refugees from Mozambique; the health services for these displaced people are organized by the Ministry of Health within the framework of the regular health services, with external support from UNHCR and other organizations. WHO is prepared to provide further support to the Ministry of Health on health sector emergency preparedness such as development of information and epidemiological surveillance, training and planning, with particular emphasis on the involvement of surveillance agents at district level, and health education. WHO has also provided UNHCR with a plan for training of local staff, to be implemented by WHO and the Ministry of Health.
- (h) Mali - Support, including technical advice and supplies, was provided in 1986-87 for the control of haemorrhagic fever epidemics in Mali as well as in many other West African countries (notably also Nigeria, Burkina Faso, Mauritania). A management study of the outbreak of yellow fever in Mali was prepared by the Centre for Research in the Epidemiology of Disasters, one of WHO's collaborating centres, and presented in the workshop in Bamako, July 1988, held for epidemic control and emergency preparedness in West Africa, with participation from many countries of the region.
- (i) Somalia - Technical advice on the refugee health programme was provided in 1987, particularly for nutrition surveillance and schistosomiasis control. Following the resolution adopted in May 1987 by the Fortieth World Health Assembly on the deteriorating health situation in Somalia caused by the recurring drought, WHO provided the Government with technical advisers for the health situation and needs assessment. A report presented to the UN General Assembly in 1987 (A/42/645) on assistance to refugees in Somalia contains proposals for strengthening of general health services, particularly for establishment of community-oriented hospitals, strengthening of existing health facilities, preparation of a national plan for emergency preparedness, management and response, as well as preparation of a plan for environmental health.

The proposals have been further studied in close cooperation with UNHCR and other UN organizations, but implementation has been delayed due to deterioration of the situation in Somalia. WHO will participate in the forthcoming UN mission and in the emergency relief, following the recent upsurge of civil disturbance in Somalia.

7. TRAINING SUPPORT

The overall goal of WHO's training support to emergency preparedness and response is to strengthen the capacity of the Member States to reduce the health impact of disasters through coordinated inter-sectoral pre-disaster planning and disaster management. Priority is given to training and development of management skills at national and community levels in order to strengthen the capacity of the Governments and of the communities to prepare for and cope with disaster situations.

Progress has been achieved in recent years in the training of national staff in emergency preparedness and response through regional and national workshops and seminars. These activities are organized in cooperation with the existing network of collaborating centres whose contribution may consist of technical advice in programme planning and implementation, development of training modules, and provision of reference documents.

Training materials are being developed with the view of ensuring uniformity and consistency in the technical content of the training activities. Existing audio-visuals and other training materials, particularly AMRO's printed and visual materials, are being adapted for use in different countries and languages.

The workshops, whether regional or national, often with the participation of representatives of neighbouring countries, offer the opportunity for participants not only to be able to promote emergency preparedness activities in their countries, but also to share their experiences during the workshops.

The workshops or meetings, organized by WHO with international participation and, whenever appropriate, together with the Governments, include:

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| 1983 | - February | - SEARO regional workshop in New Delhi |
| 1984 | - February | - WPRO regional workshop in Fiji |
| 1984 | - October | - EURO regional workshop in Trieste |
| 1985 | - February | - EMRO regional workshop in Baghdad |
| | - September | - EURO regional workshop in Ankara |
| | - November | - Interregional workshop in Honolulu AMRO/WPRO |
| | - November | - WPRO WR's briefing in Manila |
| | - November | - AFRO WR's briefing in Brazzaville |
| 1986 | - March | - EMRO subregional workshop in Khartoum |
| | - March | - AFRO regional workshop in Brazzaville for French-speaking countries |
| | - March | - Interregional meeting in San Jose, Costa Rica (AMRO) (International Disaster Assistance) |
| | - March | - International meeting in Mexico (AMRO) (The Role of Foreign Teams in Disasters) |
| | - April | - AFRO regional workshop in Addis Ababa for English-speaking countries |

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1986	-	June	-	EMRO WRS' briefing in Alexandria	
	-	July	-	Interregional workshop in Marrakesh	
				(EURO/EMRO/AFRO)	
	-	October	-	India workshop in Nagpur (SEARO)	
1987	-	April	-	Interregional meeting at WHO Headquarters	
	-	August	-	Botswana workshop in Gaborone (AFRO)	
				(Subregional participation/Subregion III)	
	-	October	-	India workshop in Aurangabad (SEARO)	
				(Interregional participation)	
	-	October	-	Consultative meeting on information and training at WHO Headquarters	
	-	November	-	Indonesia workshop in Jakarta (SEARO/WPRO)	
				(Interregional participation)	
	-	December	-	Interregional meeting in Buenos Aires (AMRO)	
				(for large cities)	
1988	-	February	-	Mozambique national workshop in Maputo (AFRO)	
	-	February	-	EURO meeting of assessors in Kuopio, Finland	
	-	March	-	Ethiopia national workshop in Nazareth (AFRO)	
	-	April	-	Sudan national workshop in Khartoum (EMRO)	
	-	April	-	WPRO/WRS' briefing in Manila	
	-	April	-	WHO/UNICEF regional meeting in Maputo (AFRO)	
	-	June	-	EURO meeting of assessors in Madrid	
	-	July	-	AFRO subregional workshop in Bamako	
				(Subregion I) (for epidemic control)	
	-	August	-	Meeting of Collaborating Centres at WHO Headquarters	
	-	September	-	Malawi national workshop in Lilongwe (AFRO)	
	-	September	-	International conference on "Nutrition in Times of Disaster" at WHO Headquarters	
				(ACC/SCN/WHO/UNHCR)	
	-	November	-	EMRO regional workshop in Hammamet, Tunisia	
	-	November	-	SEARO WRS' briefing in New Delhi	

The extensive country level training of particularly the Regional Office for the Americas (AMRO) is not included in the above.

Training courses for officials from disaster-affected countries and for international relief workers have been organized in:

- Geneva - HELP - Health Emergencies in Large Populations - annual course of 4 weeks in June/July in collaboration with the International Committee of the Red Cross and the University of Geneva;
- London - Refugee Community Health Care Course in collaboration with the London School of Hygiene and Tropical Medicine; and
- Brussels - Health Aspects of Disaster Preparedness and Management, in collaboration with the University of Louvain in Brussels - 2 weeks May/June 1988.

In addition, WHO has been co-sponsoring international conferences.

A major part of training/educational activities for Africa (including AFRO and EMRO regions) is expected to be implemented through the recently-established Centre for Emergency Preparedness and Response in Addis Ababa, Ethiopia.

The Centre aims at strengthening the development of emergency preparedness and response programmes in the Member States of Africa, in coordination with WHO Headquarters and regional offices, through:

- orientation and training of key national and international personnel and development of training materials;
- epidemiological studies of emergencies and related health research to improve the efficiency of health emergency response;
- operational research and development of field methodologies.

8. COORDINATION AND COLLABORATION

Throughout the years, WHO has gradually increased its capacity for coordination within the Organization and collaboration with international and non-governmental organizations in emergency preparedness and response, while at the same time expanding its network of collaboration centres.

8.1. Coordination with WHO

While the technical divisions of WHO continue to be fully responsible for provision of appropriate and adequate response in their fields of competence, support to technical response is provided by resource mobilization, supply and logistics operations as well as by information and communication within the organization. A coordinated and integrated approach is as crucial in emergency preparedness as in response, in order to be able to support the Member States in establishing a balanced emergency management capacity. Technical contributors to the emergency preparedness and response activities included the Programmes for Communicable Disease Control, Diarrhoeal Diseases, Health Situation and Trend Assessment, Nutrition, Mental Health and several programmes within Environmental Health.

A good example of collaboration was given by the organization of the Conference on Nutrition in Times of Disaster in September 1988, jointly organized under the auspices of the UN Administrative Committee on Coordination/Subcommittee on Nutrition, by the Emergency Preparedness and Response and Nutrition Units at WHO in collaboration with UNHCR.

8.2. Coordination with Regional Offices

Coordination with and support to the Regional Offices has remained a high priority in the effort to improve the Member States' capacities for emergency preparedness and response. Regional activities have been strengthened by the assignment since February 1988 of an APO (Associate Professional Officer) to the Regional Office for Africa in Brazzaville and in November 1988 to the Office of the Eastern Mediterranean Region in Alexandria.

8.3. Collaboration with International and Non-Governmental Organizations

WHO collaborates very closely with many UN and non-governmental organizations, the most important links at present being with:

- United Nations Disaster Relief Coordinator's Office (UNDRO), which has the mandate for coordination of international disaster relief and to whom WHO provides the health sector technical input under a Memorandum of Understanding revised in December 1987;

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- United Nations High Commissioner for Refugees (UNHCR), to ensure that common health policies are followed in refugee health operations. A Memorandum of Understanding signed in December 1987 provides the framework for cooperation;
- League of Red Cross and Red Crescent Societies (LRCRCS) and International Committee of the Red Cross (ICRC), with whom Letters of Understanding were signed in 1987 outlining areas of joint interests and activity. Monthly meetings of International Agencies based in Geneva are held at the League of Red Cross and Red Crescent Societies with a view to exchanging information and coordinating actions. A Working Group has also been set up to produce guidelines for disaster contributions in kind; WHO has offered to provide the advice of its technical divisions and programmes for the drafting of these guidelines.

8.4. Collaborating centres

A network of collaborating centres for disaster preparedness has been established and is being expanded for the overall programme support. So far, the collaborating centres have been in the developed countries. Gradually, such centres will be identified in developing countries where they should become sources of support for national programmes and also facilitate technical cooperation between developing countries.

In August 1988, a three-day meeting of the collaborating centres was held at WHO Headquarters, where plans were made for future activities. The collaborating centres include:

(a) Centre for Research in the Epidemiology of Disasters (CRED) at the University of Louvain in Brussels

CRED has been a WHO Collaborating Centre since 1980. Its main activities include:

- epidemiological research and case studies;
- training including development of training materials and programmes as well as production of audio-visual materials;
- development of information systems and support;
- field missions for situation assessment and programme planning.

(b) Centre for Disaster Preparedness and Management at the Italian Development Corporation (DPMN/IDC), Ministry of Foreign Affairs

The activities of the DPMN/IDC, which was designated as a WHO collaborating centre in 1987, include:

- support to global programme in the development of training activities, including production of guidelines and publications;
- involvement in field operations in support of the programmes in several countries;
- development of national networks of primary health care personnel in disaster preparedness.

The Centre has recently drafted a comprehensive proposal for programme support of emergency preparedness and response at country level in South-East Asia, Africa and Central America, utilizing a community-oriented approach.

The Centre is also providing major support to the Training Centre in Addis Ababa.

(c) Centre for Emergency Preparedness and Response at the Centre for Disease Control, Atlanta

This centre was designated in 1988 as a WHO Collaborating Centre and is expected to assist WHO in the following areas:

- epidemiological assessment of emergencies and health needs in large-scale disasters, and development of methods and guidelines for such assessments;
- coordination and management of selected health sector responses in emergencies;
- provision of laboratory back-up and support in emergency situations;
- training of WHO and national staff from affected countries in selected aspects of disaster preparedness;
- development of disaster modules for field epidemiology training;
- case-studies in the management of disasters.

(d) Centre for Emergency Preparedness and Response - National Public Health Institute - Kuopio, Finland

This Centre was designated as a WHO Collaborating Centre in December 1988. Its activities will focus mainly on environmental health and hygiene and the health problems related to technological disasters. The areas of collaboration will include:

- training, particularly teacher training in emergency preparedness and management
- information systems and management;
- assessment of technological disaster situations.

9. OTHER ACTIVITIES

9.1. Studies

- (a) WHO and the Collaborating Centre in Brussels, CRED, conducted in 1986-87 a study entitled "Consolidated Information System for Famine Management (CISFAM)" on early warning systems for famine management in Africa. The study developed a framework for linkage and utilization of existing data sources which, as a concept, can be used for any other data utilization purposes.
- (b) CRED conducted a study on the management of yellow fever epidemic in Mali as a model for similar management studies elsewhere.
- (c) WHO and CRED, in early 1988, prepared models for case-studies on floods in India and Bangladesh, to serve as background documents for subsequent discussions on regional and country plans for health sector preparedness and response in the SEARO region.
- (d) WHO, together with UNHCR, has initiated a study on the mental health of refugees, based on current literature.

9.2. Publications

- (a) WHO, in collaboration with the League of Red Cross and Red Crescent Societies, is publishing a book entitled "Le personnel de santé et la communauté face aux catastrophes naturelles". The original French version will be ready from the press in early 1989. English and Spanish versions will follow shortly.
- (b) A revision of the WHO publication "The Management of Nutritional Emergencies in Large Populations" was undertaken in 1987/88, to be finalized early 1989.
- (c) WHO, together with CRED, initiated a review of the recent knowledge in health and disasters, to be compiled in 1989 by a network of institutions.

10. INTERNATIONAL DECADE FOR NATURAL DISASTER REDUCTION (IDNDR)

The United Nations General Assembly has designated the 1990's as an International Decade for Natural Disaster Reduction, during which a concerted international effort will be made to reduce the loss of life and damage caused throughout the world by natural disasters.

The Decade will provide a framework into which a wide variety of projects and activities may be introduced on the initiative of national or international agencies, institutions or groups.

An international committee composed of leading experts in disaster prevention and preparedness has been set up to provide high-level scientific and technical guidance. WHO's overall role in the Decade arises from its constitutional function to act as the leading and coordinating authority on international health activities. Thus the Organization will stimulate the inclusion of health inputs into national plans and programmes aimed at natural disaster reduction. National, regional and interregional seminars, workshops and other training programmes will provide opportunities for the introduction of the aims and activities of the Decade to health workers.

The WHO Regional Committee meetings in 1989 will provide an entry point for the Decade during discussion of the reports on Emergency Preparedness and Response prepared by the WHO Regional Directors.

Annex 4

REGIONAL WORKSHOP ON ENVIRONMENTAL HEALTH MANAGEMENT IN EMERGENCIES

Amman, Jordan, 2-6 December 1989

AGENDA

1. Registration
2. Opening session
3. Election of officers
4. Announcements
5. Adoption of programme of work
6. Global programme environmental health management in emergencies
7. Environmental health management in emergencies in the Eastern Mediterranean Region
8. Plenary session, brief presentation of country reports
9. General features of natural and man-made disasters
10. Disaster and environmental changes
11. Disaster management preparedness
12. Environmental health management in disasters
13. Health aspects of disasters
14. Chemical accidents
15. Management and coordination in disasters in the Eastern Mediterranean Region
16. Panel discussions on the roles of national and international agencies in disaster management
17. Human resources for environmental health management in emergencies
18. Information exchange on environmental health management in emergencies
19. Plenary session on environmental health management in disasters
20. Discussion and approval of recommendations
21. Closing session.

Annex 5

REGIONAL WORKSHOP ON ENVIRONMENTAL HEALTH
MANAGEMENT IN EMERGENCIES

Amman, Jordan, 2-6 December 1989

LIST OF PARTICIPANTS

AFGHANISTAN	Dr Abdul Sabour President of Sanitary Epidemiology Department Ministry of Public Health <u>Kabul</u>
CYPRUS	Mr Sophocles Anthousis Chief Health Inspector Department Medical and Public Health Services <u>Nicosia</u>
DEMOCRATIC YEMEN	Mr Wadee Abdo Hassan Haddad Health Superintendent Ministry of Health <u>Aden</u>
DJIBOUTI	Mr Said Salah Youssouf Assistant Director Public Health Department Ministry of Public Health and Social Affairs <u>Djibouti</u>
EGYPT	Dr Atef Abdel Aziz Hashem Director of MDE Medical Emergency in Gharbia <u>Cairo</u> Mr Mohamed Hassan Nasar Director Sensitive Equipment Laboratories of Environmental Health in Imbaba <u>Cairo</u>
IRAN (ISLAMIC REPUBLIC OF)	Mansour Ghiaseddin Associate Professor Department of Environmental Health <u>Teheran</u> Dr Reza Noushad Jamal Environmental Health Expert of Regional Health Organization <u>Zanjan Province</u>

IRAQ	Mrs Najat Wadiaa Bashir Director Environmental Health Studies Ministry of Health <u>Baghdad</u>
JORDAN	Dr Ahmad Sallaj (Focal Point) Occupational Health Physician Ministry of Health <u>Amman</u>
KUWAIT	Dr Mohammad Ahmad Al-Sharhan Deputy Director Department of Emergency Medical Services Ministry of Public Health <u>Kuwait</u>
LIBYAN ARAB JAMAHIRIYA	Mr Mohamed Ahmed Habroush Director, Environmental Health Section General People's Committee for Health <u>Tripoli</u>
MOROCCO	Dr El Mostafa Lamqaddan Sanitary Engineer Ministry of Public Health <u>Rabat</u>
QATAR	Mr Salem Abdullah Majed Saad Al Saad Environmental Protection Committee <u>Doha</u>
SAUDI ARABIA	Mr Ibrahim Said Azouny Director of Preventive Medicine The Directorate of Health Affairs <u>Al Madinah Al Munawara</u>
SOMALIA	Dr Abdirashid Mohamed Hussein Head of Food Safety Project Ministry of Health <u>Mogadishu</u> Mr Abdirahim Abdirisaq Haji Deputy Director Environmental Health, Water Supply and Sanitation Ministry of Health <u>Mogadishu</u> Dr Abdi Hussein Mohamed Head of Emergency Unit Ministry of Health <u>Mogadishu</u>
SUDAN	Dr Ahmed Abdul Rahman Ali Head of Health and Nutrition Section International Health Ministry of Health <u>Khartoum</u>

ENVIRONMENTAL HEALTH MANAGEMENT IN EMERGENCIES

Mr Mohamed Hamid Mushrif
Chief Public Health Inspector
Ministry of Health
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SYRIAN ARAB REPUBLIC

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Ministry of Health
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TUNISIA

Dr Farza Laafif
Public Health Doctor
Environmental Health Division
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Tunis

WHO SECRETARIAT

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Chief, Environmental
Health Programme

WHO Eastern Mediterranean
Regional Office,
Alexandria

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Manager, Community
Water Supply

WHO/Headquarters, Geneva

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Regional Adviser,
External Coordination

WHO Eastern Mediterranean
Regional Office,
Alexandria

Mr M.A. Mullick

Regional Adviser,
Community Water Supply

WHO Eastern Mediterranean
Regional Office,
Alexandria

Dr H. El Baroudi

Acting Coordinator,
Centre for Environmental
Health Activities

WHO Centre for
Environmental
Health Activities (CEHA)
Amman, Jordan

Dr A. Calvani

Head, Emergency
Preparedness and Response

WHO Emergency
Preparedness
and Response Centre.
WHO, Regional Office

Dr John Jones

Regional Adviser,
Prevention of Accidents
Europe

Mr M. Elmi

Associate Professional
Officer, Emergency Relief
Operations.

c/o WHO Representative's
office, Khartoum, Sudan

Mr M. Assar

WHO Consultant

c/o WHO Representative's
Office, Teheran, Islamic
Republic of Iran
c/o WHO Office, Iran

Mr O. Sperandio

WHO Consultant

c/o EMS,
WHO Headquarters, Geneva

WHO COLLABORATING CENTRES

WHO Centre for Emergency Preparedness and Response, Addis Ababa, Ethiopia

National Institute of Public Health, Kuopio, Finland

Centre for Disaster Management and Nursing, Rome, Italy

Centre for Disease Control, Atlanta, USA

UN AGENCIES

UNDP, Amman, Jordan	Ms Rima Damen Programme Officer
UNICEF, Amman, Jordan	Dr Leila Bisharat Mr Salem Tayyarah
UNESCO, Amman, Jordan	Dr Ghazi Abou Chakra, UNEDBAS
UNRWA, Amman, Jordan	Mr Pierre Lauriault Chief, Environmental Health Mr N. Shalback, Sanitary Engineer Mr S. Fady1, Sanitary Engineer Mr H. Arid, Sanitary Engineer

OBSERVERS

UNEP	Mr C.R. Young Senior Industrial Consultant
League of Red Cross and Red Crescent Societies, Geneva	Mr Solayman Eleghmary Head of Middle East and North Africa Department

Annex 6

REGIONAL WORKSHOP ON ENVIRONMENTAL HEALTH
MANAGEMENT IN EMERGENCIES

Amman, Jordan, 2-6 December 1989

LIST OF BASIC DOCUMENTS AND TOPICS FOR DISCUSSION

- | | |
|---|-------------------|
| 1. Agenda | EM/WKP.EHM.EMG/1 |
| 2. Programme of Work | EM/WKP.EHM.EMG/2 |
| 3. List of Participants | EM/WKP.EHM.EMG/3 |
| 4. Global programme environmental health management in emergencies, Dr. D. Warner, Manager CWS/WHO/HQ | EM/WKP.EHM.EMG/4 |
| 5. Environmental management in emergencies in Eastern Mediterranean Region, Mr M. Mullick Regional Adviser, CWS/WHO/EMRO | EM.WKP.EHM.EMG/5 |
| 6. Disaster-related terminology
Mr Sperandio, WHO consultant | EM/WKP.EHM.EMG/6 |
| 7. Disaster and environmental changes,
Mr Assar, WHO consultant | EM/WKP.EHM.EMG/7 |
| 8. Disaster management preparedness,
Dr John Jones, Regional Adviser,
Prevention of Accidents, EURO | EM/WKP.EHM.EMG/8 |
| 9. Health aspects of disasters,
Mr Elmi, APO/EPR/COR, Sudan | EM/WKP.EHM.EMG/9 |
| 10. Environmental health management in disasters, Mr M. Assar and Mr O. Sperandio, WHO consultants. | EM/WKP.EHM.EMG/10 |
| 11. Environmental health management in disasters, chemical accidents,
Dr Mikko Holopainen, Kuopio, Finland. | EM/WKP.EHM.EMG/11 |
| 12. Global/Regional programme for emergency preparedness in the Eastern Mediterranean Region, Dr A. Gebreel, RA/COR, EMRO. | EM/WKP.EHM.EMG/12 |
| 13. Human resources for environmental health management in emergencies, Mr O. Sperandio, WHO consultant. | EM/WKP.EHM.EMG/13 |
| 14. Information exchange on environmental health management in disasters,
Dr A. Calvani, WHO Centre for Emergency Preparedness, Addis Ababa, Ethiopia. | EM/WKP.EHM.EMG/14 |

Annex 7

REGIONAL WORKSHOP ON ENVIRONMENTAL HEALTH
MANAGEMENT IN EMERGENCIES

Amman, Jordan, 2-6 December 1989

LIST OF COUNTRY REPORTS AND INFORMATION STATEMENTS

1. The emergency situation created in Cyprus by the Turkish invasion
Mr S. Anthousis
2. Case Study of March-April 1989 Heavy Rainfall Flood Disaster and
Mitigation Programme in Democratic Yemen
Mr Wadie Abdo Hassan Hadad
3. Country Presentation - Djibouti
Dr Said Salah Youssef
4. Case Studies and Country Presentation, Egypt
Mr M.H. Nassar
5. Disasters in Iran and Environmental Health Measures
Prof. M. Ghiasseddin
6. Case Study and Country Presentation, Jordan
Chlorine Leakage from Chemical Detergent Factory
Dr A. Sallaj
7. Informative Statement, Kuwait
Dr Mohammad Ahmad Al-Sharhan
8. Country Profile of the Libyan Arab Jamahiriya
Dr M.A. Habroush
9. Environmental Health Management in Temporary Camps, Morocco
Dr El-Mostapha Lamqaddam
10. Water Catchment Protection Against Contamination and Emergency
Procedures in Case of Toxic Pollution of Water Resources, Morocco
Dr H. Abou Zaid
11. Country Presentation, Saudi Arabia
Mr Ibrahim Said Azouny
12. The Cholera Epidemic in the Northern Regions of Somalia March-April 1985,
Somalia
Dr A.M. Hussein, Dr A.H. Mohammed, Mr A.A. Haji
13. Country Report, Sudan
Mr M.H. Mushrif, Dr A.A. Rahman Ali
14. Domestic Waste in Syria, Facts, Sources, Treatment and Control,
Recommendations
Dr Abdul Karim

15. Country Presentation, Tunisia
Dr L. Farza
16. Informative Statement UNRWA
Mr N.M. Shalbak
17. Informative Statement
League of Red Cross and Red Crescent Societies
Mr Solayman Eleghmary
18. Informative Statement about Case Study in Kuwait
Dr H. El-Baroudi
19. Informative Statement on CEHA Potential Role on Environmental Health
Management in Emergencies
Dr H. El-Baroudi
20. Environmental Health Regional Network CEHANET, CEHA
Dr Najeeb Al-Shorbaji

Annex 8

REGIONAL WORKSHOP ON ENVIRONMENTAL HEALTH MANAGEMENT IN EMERGENCIES

Amman, Jordan, 2-6 December 1989

LIST OF BACKGROUND MATERIAL

1. Environmental health management in natural disasters and other types of
emergencies. A selected and annotated bibliography
by Mr A.O. Sperandio
2. Guide to sanitation in natural disasters, by Mr Mohammad Assar
3. Environmental health management after natural disaster, PAHO/WHO
4. Emergency vector control after natural disaster, PAHO/WHO
5. Disaster prevention and mitigation, current knowledge Vol. 8,
sanitation aspects. UNDRO
6. Natural disasters and vulnerability analysis. UNDRO