

**ENVIRONMENTAL HEALTH MANAGEMENT
IN EMERGENCIES**

ENVIRONMENTAL HEALTH MANAGEMENT IN EMERGENCIES

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In the Name of God, the Compassionate, the Merciful

FOREWORD

by

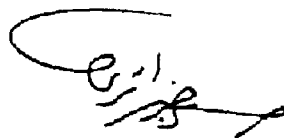
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All countries must be prepared to deal with disaster. Disaster may result not only as a consequence of sudden natural events such as earthquakes, hurricanes, volcanic eruptions, floods and droughts, but also as a consequence of accidents involving, for example, chemicals, radiation, oil spills and fires, and of deliberate acts of man such as war and riot. Disaster, both natural and man-made, is something to which many countries of the Eastern Mediterranean Region are prone. It can impair environmental conditions through sudden changes in air and water quality, soil pollution, and damage to, and even destruction of, water supply and sanitation facilities and other basic community services. A disruption in the environmental balance can have serious consequences for the health and well-being of the stricken population.

Major efforts are being made by the World Health Organization at global, Regional and country level to raise awareness and to enhance national capabilities in emergency preparedness aspects, particularly those directly related to health. Information available shows that many national agencies in the Eastern Mediterranean Region are interested in developing their capabilities to deal with disaster and in setting-up institutional procedures for effective action in emergencies and disaster situations. This is true for the health sector, water supply and sanitation agencies and institutions responsible for environmental protection and pollution control.

With this in mind, WHO organized the workshop on Environmental Health Management in Emergencies in order to provide a forum for development of national capability and for the exchange of experience and information on technical and managerial aspects of environmental health management in emergencies. The event resulted in the exchange of views and discussion of selected topics related to disaster prevention and mitigation, emergency preparedness, vulnerability analysis, environmental health problems in emergencies, national intersectoral coordination, external support in emergencies, human resources development and dissemination of information. The workshop was one more step in the process to expand further WHO assistance to countries in emergency preparedness and disaster relief in health-related matters. We thank the Government of Jordan for hosting the workshop and for its continuing concern for environmental quality in the Region - a concern, I am sure, we all share.



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SECTION ONE

INTRODUCTION, CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION, CONCLUSIONS AND RECOMMENDATIONS

1. INTRODUCTION

The purpose of the Regional Workshop on Environmental Health Management in Emergencies held in Amman in December 1989 was to focus attention on the environmental health problems associated with disaster and emergency situations, to promote a wider participation of environmental health agencies in national efforts for emergency preparedness and disaster relief, and to provide a forum for the exchange of experience and information on technical and managerial aspects of environmental health in emergencies. In the light of these objectives the workshop focused on the following main issues:

- WHO activities in emergency preparedness and response;
- Disaster management preparedness and relief;
- Environmental health management in emergencies;
- Environmental health management in disaster due to chemical accidents;
- Information exchange on environmental health management in emergencies;
- Human resources development for environmental health in emergencies;
- Awareness and preparedness for emergencies at local level;
- International cooperation and intersectoral coordination;
- Country reports and informative statements related to environmental health management in emergencies.

Thirteen technical papers and nineteen country reports and informative statements were presented at the workshop. The technical papers have been reproduced in full in Section Two of these Proceedings, and fourteen country reports in Section Three; papers have been edited only to the extent necessary for proper comprehension. The Agenda, list of participants and list of basic documents as well as the WHO Annual Report on Emergency Preparedness and Response can be found in the Annexes. The conclusions and recommendations are reproduced below.

2. CONCLUSIONS AND RECOMMENDATIONS

The participants and representatives of UN organizations and NGOs present at the meeting strongly supported the general objectives of disaster-reduction efforts aimed at reducing the vulnerability of disaster-prone countries and upgrading the capability of national agencies to deal with disasters. It was recognized that disasters can seriously impair environmental quality, with damage to and even destruction of basic lifeline services as well as, in certain cases, pollution of air and water resources. For this reason, special attention should be given in all pre- and post-disaster interventions to environmental health aspects. Many countries are now in the process of developing and implementing national emergency plans; it is important that proper attention be given in such plans to environmental health aspects and that agencies responsible for environmental health participate actively in the whole process of emergency preparedness and disaster relief.

Against this background, the workshop drew the following conclusions and drafted the associated recommendations:

2.1. WHO activities in environmental health emergency preparedness and response

WHO support has been instrumental in promoting awareness and upgrading national capability in emergency preparedness and disaster relief. The

workshop acknowledged the important role that WHO is playing in this regard, in coordination and cooperation with other agencies of the UN system; the initiative of organizing a Regional event on environmental health management in emergencies is considered timely and important for the whole Eastern Mediterranean Region. The need for support to training, information exchange and institutional development in aspects related to environmental health management in emergencies is well known and national agencies are eager to do more to enhance their capacity of response to environmental health problems associated with disasters and emergencies.

It is therefore recommended that:

2.1.1. The Regional Workshop on Environmental Health Management held in Amman be properly followed up by the preparation and implementation of a Regional plan for support to EMR countries in aspects related to environmental health management in emergencies as a component of the overall programme of EPR. This plan should include WHO support to education and training activities, information exchange and technical cooperation activities.

2.1.2. WHO is requested to organize other meetings on environmental health management in emergencies and to include such meetings in its plan of assistance to EMR countries for the biennium 1990-1991.

2.1.3. Consideration should be given to enhancing CEHA's role in environmental health management in emergencies, mainly in aspects related to training and information exchange through its CEHANET information system. CEHA is expected to play an active role as a clearinghouse for documentation and technical information on environmental health management in emergencies. Disaster modules for use in training and education activities relevant for the Region should be developed.

2.1.4. CEHA may consider promoting and supporting special studies on the environmental health consequences of the most common disasters in the Region.

2.1.5. WHO Collaborating Centres are also requested to cooperate in efforts to enhance the capabilities of national agencies in the EMR in aspects related to environmental health management in emergencies.

2.1.6. WHO is requested to develop rapid assessment protocols for emergency and disaster situations. WHO also cooperates with countries to develop their capabilities in carrying out the necessary assessments when such situations arise.

2.1.7. Consideration should be given to the preparation and updating of manuals and guides related to environmental health management.

2.2. Disaster management, preparedness and relief

Most of the countries of the Eastern Mediterranean Region are disaster-prone, vulnerable to natural, man-made and technological disasters. Emergency preparedness is extremely important to upgrade national capability to respond to such situations.

It is therefore recommended that:

2.2.1. Countries of the EMR pursue their efforts to enhance national capabilities at all levels for effective disaster management, preparedness

and relief. Special attention should be given to preparation of national, local and institutional emergency plans; all of these should include environmental health aspects.

2.2.2. Emergency plans should be developed and implemented with the participation of environmental-health-related agencies and specialities.

2.2.3. Rapid assessment of health needs at the time of a disaster must include environmental health.

2.2.4. The community must be prepared to cope with emergencies. It is recommended that the community participate in emergency preparedness through taking part in exercises.

2.2.5. The public should be made aware of environmental health risks in emergencies, as a part of normal health education methods and procedures.

2.2.6. Food hygienic control should be exercised in disaster-stricken areas.

2.2.7. Emergency preparedness interventions should be a responsibility of the existing national institution rather than establishing new institutional arrangements.

2.2.8. Emergency preparedness should be dealt with by means of a pragmatic approach, taking into account the existing limitations regarding national resources and the prevalent health and environmental health conditions.

2.2.9. Maximum utilization should be made of the support provided by non-governmental agencies; their contribution on a voluntary basis for the relief of the affected population should be fully recognized.

2.3. Environmental health management in emergencies

Disasters can imply profound environmental changes, quite often with damage to and even destruction of basic sanitary and life-line services, and/or pollution of air, soil, and water resources. Sanitary coordination can be greatly impaired by increase in vector populations and displacement of human populations by the destruction of shelters. Agencies responsible for environmental health should be prepared to cope with such situations.

It is therefore recommended that:

2.3.1. Countries of the Region give special attention to developing the proper legislation, institutional arrangements, human resources and logistical support for effective management of environmental-health-related problems in disaster situations and emergencies.

2.3.2. National agencies responsible for environmental-health-related activities take the necessary actions to develop and/or strengthen capability in emergency management. Emergency committees should be established at high institutional level, to propose and coordinate all the necessary actions; such committees should have a permanent character and should report directly to the highest managerial officer(s).

2.3.3. Guidelines for environmental health management should be developed at national/institutional level. Before starting the development of such

guidelines, national agencies should take into account the material which is already available on the subject (i.e. guidelines developed by other countries, international organizations, NGOs etc.). Consideration should also be given to the development of Regional guidelines on selected subjects.

2.3.4. Special attention should be given to environmental health management in refugee and refugee-like situations; the handling of environmental health problems in refugee areas may require approaches and technological solutions which may differ from those applicable in other types of emergencies.

2.4. Environmental health emergencies caused by chemical accidents

The available information shows that emergencies due to chemical accidents are increasing in both developing and developed countries. This is particularly true for the countries of the Eastern Mediterranean Region. Preparedness for and response to chemical accidents require special approaches. Not only do the national agencies have to be prepared for such situations but preparation must also exist at community level.

It is therefore recommended that:

2.4.1. National agencies should be prepared to deal with emergencies caused by accidental release of chemical substances. Preparedness in this area should include: proper legislation, recording and reporting, proper siting of chemical industries, strict regulations for the transport of chemicals, storage and dumping of hazardous chemical wastes, effective measures for inspection of industries and distributors of chemicals, an inventory of factories dealing with dangerous chemicals and disposal of hazardous wastes.

2.4.2. The staff of national agencies responsible for environmental health/environmental quality control should be properly prepared to cope with chemical accidents.

2.5. Information exchange on health environmental management in emergencies

Information exchange can play a very important role in all phases of disaster preparedness and relief. Information should be available at all levels, i.e. national agencies, private sector, voluntary institutions and, most importantly, at community level. In the Eastern Mediterranean countries there is still a gap in information exchange in environmental-health-related matters.

It is therefore recommended that:

2.5.1. In the overall process of information exchange on emergency preparedness and response, attention be given to aspects related to environmental health.

2.5.2. National agencies responsible for environmental-health-related activities participate actively in the information exchange process related to emergency preparedness .

2.5.3. Information exchange on aspects related to environmental health in emergencies reach professionals, technicians, volunteers and the public in general.

2.5.4. National agencies in Member States responsible for locust control should give information to the early warning system on locust infestation, on chemicals that can be used for control and the environmental health consequences of use of such chemicals.

2.6. Human resources development in environmental health management in emergencies

For any emergency preparedness programme to be successful, adequate human resources must be available. Training and education in environmental health management in emergencies should be given to a wide spectrum of individuals, following a strategy compatible with local emergency plans.

It is therefore recommended that:

2.6.1. High priority be given to the education and training aspects of environmental health management in emergencies. Efforts should be made to involve in this process national agencies, universities, schools, volunteer organizations and the private sector.

2.6.2. Training be given to professionals, technicians and auxiliary personnel of national agencies responsible for environment-health-related activities; training activities should be properly linked with emergency plans.

2.6.3. Manuals, instructional materials and training/modules be made available to institutions responsible for training and education activities. In this context, WHO, UNDRO, UNEP and other external support agencies are requested to cooperate with national agencies in their endeavours to have the existing material available, to use it or adapt it for use. CEHA can also play an important role in this regard.

2.6.4. At university level, efforts be made to incorporate in the curricula of schools of public health, engineering/sanitary engineering and others, subjects related to environmental health management in emergencies.

2.6.5. Attention be given at regional and national level to training in aspects related to risk assessment, vulnerability analysis, technological approaches for emergency situations and disaster management.

2.6.6. In-service training be allotted an important role in order to upgrade institutional response to emergencies. WHO is expected to cooperate in this respect.

2.7. Awareness and preparedness for emergencies at local level (APELL)

Cooperation of the community, mainly the private sector, industries and users of hazardous chemicals, is important in the prevention of accidental releases and spills.

It is therefore recommended that:

2.7.1. Since the APELL process developed by UNEP covers subjects of the highest interest to EMR countries, UNEP is requested to pursue its efforts to collaborate with interested countries for implementation of APELL at local level.

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2.7.2. Information on APELL be distributed to EMR countries, mainly to environmental protection agencies, health ministries, universities and the private sector.

2.7.3. Other UN agencies are expected to cooperate in order to raise awareness and preparedness at local level related to environmental health in emergencies.

2.8. International cooperation and intersectoral coordination

International cooperation can play a very important role in emergency preparedness and relief, provided it is well coordinated and responds to the needs of the stricken country. Intersectoral coordination at national level is extremely important for the success of the emergency preparedness national plan.

It is therefore recommended that:

2.8.1. Cooperation of international agencies and governments be secured for emergency preparedness activities including those related to environmental health aspects. International agencies are requested to make efforts to secure such cooperation at the local level in order to ensure effective coordination with governments.

2.8.2. Intersectoral coordination is an essential prerequisite for effective emergency preparedness and disaster relief operations. Agencies which are responsible for environmental health interventions should necessarily be part of overall efforts for preparedness and relief in disaster situations and should effectively participate in the preparation and implementation of emergency plans.

2.8.3. Emergency plans at institutional level, such as for example an emergency plan for a water supply and sanitation agency, should be developed in close coordination with agencies responsible for civil defence, public health etc.

2.9. Country reports and informative statements related to environmental health management in emergencies

The country reports and informative statements presented at the workshop show that there is already a wealth of knowledge and information available in the countries of the Region regarding environmental health management in emergencies.

It is therefore recommended that:

2.9.1. Countries give special attention to collection of data and preparation of reports and other documents regarding experiences with disasters and emergencies; environmental health aspects should be included in such reports and should be made available to CEHA.

2.9.2. Efforts be made by countries and external support agencies to improve the process of information exchange so that case studies and reports on emergencies be circulated, for the benefit of environmental-health-related agencies.