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ASSISTANCE IN CASES OF NATURAL DISASTER

Comprehensive report of the Secretary-General

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INTRODUCTION

1. The Secretary-General's interim report of 12 May 1970 (E/4853) on assistance in cases of natural disaster recorded the action that had been taken up to then by Governments and international organizations in implementing General Assembly resolution 2435 (XXIII) of 1968. It brought out the very considerable expansion, in the course of the preceding decade, of the contribution of the international community to countries stricken by disasters and the importance of this contribution. In emphasizing the vast losses of property as well as of human lives due to natural disasters and the associated cost to economic and social development, the interim report called attention to three areas where international action seemed particularly important and where the efforts of international organizations might be strengthened:^{1/} the intensive application of science and technology to the prediction, control and mitigation of natural disasters; pre-disaster planning and preparedness; and the establishment of a focal point in the United Nations system "from which to initiate action and exercise more effective co-ordination" (E/4853, p. 51).

2. The contents of last year's document will not be repeated in the present comprehensive report, which was originally called for in resolution 2435 (XXIII), except where necessary to the understanding of subsequent developments. Since early May 1970 a number of significant events have taken place. Two major disasters occurred during that same month. There were extensive floods in Romania and parts of Hungary and a massive international response to calls for assistance was forthcoming. Then, on 31 May, came the devastating earthquakes in Peru, which laid waste an entire region. Assistance of a range and volume never before approached was offered and supplied by Governments, voluntary agencies and United Nations organizations - a remarkable response to the appeal of the 1968 General Assembly. A summary description of this assistance, of the co-ordination arrangements, the problems and some of the results achieved in the months immediately following the disaster is to be found in the interim report of the Personal Representative of

^{1/} Details of existing resources are given in "International action in cases of natural disaster: a manual on the resources and procedures of the United Nations family", which was made available to those concerned in 1966; a revised version is now being prepared showing the increased resources currently available to United Nations organizations for assistance of all types in cases of natural disaster.

the Secretary-General for Peru (E/L.1356, 2 October 1970). Apart from the early response on the part of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), two of the many facets of this assistance were particularly striking: the key role of the resident representative of the United Nations Development Programme (UNDP) (under the arrangements agreed by the Economic and Social Council in 1965^{2/}) as the local point of contact for international disaster assistance; and the deployment of the Technical Cadre Unit of the Swedish Stand-by Force for United Nations service which added a new dimension to natural disaster assistance by undertaking reconstruction work in Peru under the direct aegis of the United Nations.

3. The Economic and Social Council, meanwhile, at its forty-ninth session in July adopted three resolutions relating to international assistance in cases of natural disaster.^{3/} The first, resolution 1518 (XLIX), was exclusively concerned with the Peruvian catastrophe and was based on decisions previously taken at a special session of the Committee of the Whole of the Economic Commission for Latin America and the Governing Council of UNDP. A second resolution, 1533 (XLIX), dealt with the establishment of an international disaster fund to be used in the first instance to help in meeting the needs of Peru. The third, resolution 1546 (XLIX), covered the wider problems of international assistance. It considered with interest the Secretary-General's interim report, indicated a number of additional points which it wished the Secretary-General's comprehensive report of 1971 to cover, and commended his intention to entrust one of his senior officials with the responsibility of acting for him on a regular basis in the co-ordination of international disaster assistance. This intention was fulfilled by the Secretary-General's bulletin of 26 October 1970 (ST/SGB/131/Amend.²⁴) by which the Assistant Secretary-General for Inter-Agency Affairs was appointed to advise the Secretary-General when required and to represent him in all matters relating to assistance in cases of natural disaster, as well as other aspects of United Nations action in natural disasters and similar situations. The administrative framework of the focal point was thus established, but without additional staff.

^{2/} See Economic and Social Council resolution 1090C (XXXIX) and "International action in cases of natural disaster: a manual on the resources and procedures of the United Nations family".

^{3/} A fourth related resolution, 1519 (XLIX), concerned measures to be taken for famine relief in the Yemen Arab Republic.

4. In early November, there occurred in East Pakistan the most devastating disaster of modern times. In response to the appeal of the Pakistan Government, offers of aid of all kinds were made by Governments, voluntary agencies and intergovernmental organizations. The new arrangements for fuller consultation among the United Nations organizations concerned proved helpful. But owing to the nature and extent of the disaster, and the local conditions, in particular the lack of communications and transport in the devastated area, not a great deal could be done to save life and lessen suffering. A sense of frustration grew throughout a world community anxious to help, a sense too that international efforts at times of such catastrophe did not measure up to the technical capacity and resources of modern society or satisfy the conscience of the world.

5. Although every disaster is a special case with its own challenges and problems, the problems experienced in Pakistan on an unprecedented scale were to a large extent those which have arisen in many major disasters in recent years. These range from the inadequate functioning of warning systems to the breakdown of communications, including telecommunications. They include the absence of reliable early information on the nature and extent of the emergency and of priority needs that cannot be met by local resources - ignorance of which causes serious difficulty and embarrassment to the would-be donors. They also include obstacles to the rapid dispatch of assistance from overseas, such as delays in obtaining overflight and landing clearances for aircraft, uncertainty regarding the waiver of import duties and restrictions for relief supplies, the failure in some cases to grant "tourist" or similar favourable exchange rates to relief organizations and units, and the absence of prior arrangements for granting the Red Cross authority to use its own radio transmitters and wave-lengths. On the part of donor countries and relief organizations, there has been the wholly understandable desire to rush supplies to the disaster area, even if there was no reliable information as to real requirements or an assurance that the supplies could be handled and distributed to those in need. Sometimes also, donors have concentrated on traditional "relief supplies" to the neglect of vehicles and other means of transport such as helicopters, where these were vital. Finally, the recent disasters have brought out the undoubted need for a major strengthening of the arrangements within the United Nations system.

6. Awareness of these problems was widely reflected not only in the press and public opinion but also in the debates in the General Assembly. These debates led to the adoption of resolution 2717 (XXV) on 15 December 1970, in which the General Assembly first invited Member States "to consider and to continue offering on a wider basis... emergency assistance... , including stand-by disaster relief units" and further

"to communicate information to the Secretary-General on the kind of facilities and services they might be in a position to provide immediately, if they so decided, in response to a request from him to participate in emergency relief operations, including, where possible, the number and type of vehicles or other means of delivering supplies to disaster areas by air, sea and land".

7. Whereas General Assembly resolution 2435 (XXIII) of 1968 had merely requested the Secretary-General to report on its implementation, the new resolution significantly gave him the responsibility of including in his comprehensive report to the General Assembly at its twenty-sixth session, through the Economic and Social Council, conclusions and recommendations regarding almost every aspect of disaster assistance. Specifically, he was called upon to make recommendations on:

"4. ...

(a) The capacity of the different organizations of the United Nations system to contribute assistance in connexion with natural disasters;

"(b) The areas where this assistance might be increased or made more effective;

"(c) The most appropriate means to strengthen further the capacity of the United Nations relating to natural disasters, including organizational arrangements for the permanent office in the United Nations Secretariat responsible for the co-ordination of action relating to natural disasters, epidemics, famines and similar emergency situations and the resources required therefor;

"5. ...

(a) Ways and means of ensuring better mobilization and co-ordination of the assistance to be provided through the United Nations, the organizations of the United Nations system, as well as the League of Red Cross Societies and other non-governmental organizations;

"(b) Pre-disaster planning at the national and international levels, including the definition of machinery and contingency arrangements capable of coping immediately with disaster situations;

/...

"(c) The stockpiling of emergency supplies, including medicines, non-perishable food-stuffs, blankets, tents and clothing, and the earmarking of other facilities such as logistical equipment and helicopters;

"(d) The application of technology to, and scientific research for, the prevention and control of natural disasters, or a mitigation of the effects of such disasters, including arrangements to disseminate effectively to all countries the fruits of research from satellites and other sophisticated technology with a view to strengthening international co-operation to determine the causes and early manifestation of impending disasters, and the development and improvement of early warning systems;

"(e) National and international programmes designed to train relief personnel;

"(f) Measures to be taken in the initial emergency or post-disaster phase directed at immediate relief operations and short-term low-cost rehabilitation measures, including the deployment of mobile transportation units and the means to assess the extent of damage and the amount of assistance needed in this first phase;

"(g) The study of long-term plans for the reconstruction and development of disaster areas, and the affected countries as a whole, bearing in mind the principle that the problems of reconstruction are inseparable from the problems of economic development;"

The Secretary-General was also requested:

"6. ... in co-operation with the organizations of the United Nations system and the League of Red Cross Societies, where appropriate, to study and recommend in his comprehensive report, taking into account past practices, the most effective measures and means to meet requests for technical assistance by States Members of the United Nations system in elaboration of their planning of national preparations to meet natural disasters, epidemics, famines and similar emergency situations;"

8. These issues will be discussed in the following sections and the Secretary-General will make certain recommendations regarding them. The most recent experience has confirmed two matters of critical importance in which the United Nations system may be capable of making a still more substantial contribution. The first relates to the prevention, control and prediction of disasters; the second to the development of pre-disaster planning and preparedness arrangements (including stockpiling and training) in disaster-prone countries as well as in other countries which are anxious to help. Through such measures it may be possible to solve or at least mitigate the frustrations and difficulties so commonly encountered in connexion with international emergency action when a disaster strikes.

9. The report will also deal with arrangements for emergency action at the level of the United Nations system, of donor Governments and of voluntary agencies. It will further consider assistance in rehabilitation and reconstruction - matters in which the United Nations system has been most active hitherto; organizational arrangements in the United Nations, including the establishment of a permanent office for disaster assistance and the assignment of continuing responsibility at the country level to the resident representatives of UNDP; and questions of finance.

10. The report has been prepared with the assistance of all the United Nations services and organizations directly concerned and in close consultation with them. Notable among these are the Department of Economic and Social Affairs of the United Nations Secretariat, the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the World Food Programme (WFP), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), the International Telecommunication Union (ITU), the World Meteorological Organization (WMO), the League of Red Cross Societies - which in addition to extensive contributions in writing seconded one of its senior officers to help in preparing the report in New York - and the International Committee of the Red Cross, individual voluntary agencies and organizations of such agencies, such as the International Council of Voluntary Agencies (ICVA). The Secretary-General has also had the benefit of a number of government responses to his request for views and comments on resolution 2717 (XXV).

11. General Assembly resolution 2717 (XXV) has already been considered by several interested United Nations organs. The Advisory Committee on the Application of Science and Technology to Development, at its fourteenth session in February 1971, recognizing "the importance of scientific research and modern technology in reducing the impact of natural disasters on man and society", decided to prepare a preliminary study, which it hoped to complete before the General Assembly considered the matter later this year. The study is to have three objectives: to identify areas for further scientific research into natural phenomena, to identify areas for further technological research on the improvement of protective measures and to delineate the outline of a feasibility study with the aim of establishing a network of sensors to transmit information for use in early warning

of major disasters. The Preparatory Committee for the Conference on the Human Environment called for a study of arrangements for monitoring and surveillance of environmental variables to make possible the forecasting of natural disasters and an inter-governmental working group review of the value of establishing new (early warning) systems. Care is being taken to avoid duplication in implementing these different initiatives. The executive secretaries of the regional economic commissions at the meeting of these bodies in January 1971 also stressed the increasing awareness of the importance of assistance in cases of natural disaster, adding a plea for regional or subregional disaster relief units equipped with their own logistical support and supplies.

12. Several specialized agencies and other United Nations organizations have also taken steps to develop further their capacity to contribute. The Executive Board of UNICEF, in response to a recommendation of the Executive Director in his most recent progress report, authorized at its meeting in April 1971 the establishment of an emergency reserve of \$1 million. The emergency reserve had earlier been limited to \$200,000 per year and the Executive Director had found it necessary in connexion with several recent disasters to make special appeals to Governments and to the public. The larger reserve will have the advantage of enabling UNICEF to respond more significantly than at present in any relatively small emergencies and, in more serious emergencies, to make a greater contribution not only to immediate aid but also to rehabilitation, pending the preparation of longer term plans and the mounting of special appeals to finance them. Part of the reserve is to be in liquid funds; part in supplies immediately available for emergency use.

13. The United Nations Educational, Scientific and Cultural Organization has identified a series of areas requiring systematic study including long-term studies of natural phenomena and means of protection against them, training, post-disaster action and information services. The Secretary-General of WMO in a tentative plan of action, in implementation also of General Assembly resolution 2733 (XXV), specifically proposed a major new project directed towards the mitigation of tropical storm damage. This would cover such activities as the forecasting of tropical storms and storm surges, warning systems, community preparedness and disaster relief and emergency meteorological services.

14. To this end the Secretary-General of WMO urged the introduction of a major new tropical research project involving the evaluation of tropical storm and storm surge risks, the study of tropical storm precipitation and associated flood forecasting problems, and research on artificial storm modification. He is pressing for more vigorous efforts towards the full implementation of the World Weather Watch Plan and the ECAFE/WMO typhoon project with its plans for the Bay of Bengal area. A recommendation to go forward with the Bay of Bengal Committee will be before the Economic Commission for Asia and the Far East at its April meeting.

15. At the global meeting of UNDP resident representatives in New Delhi in February 1971 a special item was devoted to the responsibilities of the resident representatives. It is recognized that they have a critical role to play in preparations to meet disasters and in the action necessary when a disaster actually occurs in the country to which they are assigned.

* * * *

16. General Assembly resolution 2717 (XXV) mentions "natural disasters, epidemics, famines and similar emergency situations". The types of disaster, however, with which this report is mainly concerned have two key characteristics: they are sudden and largely unpredictable and they require assistance of different kinds including varied aid from outside the afflicted country. Volcanic eruptions, earthquakes, wind storms (otherwise known as tropical cyclones; including hurricanes and typhoons), tsunamis (seismic tidal waves) and floods have these characteristics in common. Food scarcity and famine on the other hand are rarely sudden and unpredictable and to this extent fall largely outside the arrangements proposed in this paper; furthermore, they usually require action of one kind only. This second characteristic applies also to epidemics and locust plagues. These disasters have normally been handled by a particular agency of the United Nations with the experience and capacity to contribute assistance where necessary.

17. The effects of civil conflicts or emergencies caused by war or civil disturbance have many of the features associated with natural disaster situations. They are frequently sudden, and give rise to a need for assistance of many kinds from different sources. A number of measures designed to cope with the needs arising from natural disasters can be applied in such other emergencies. However,

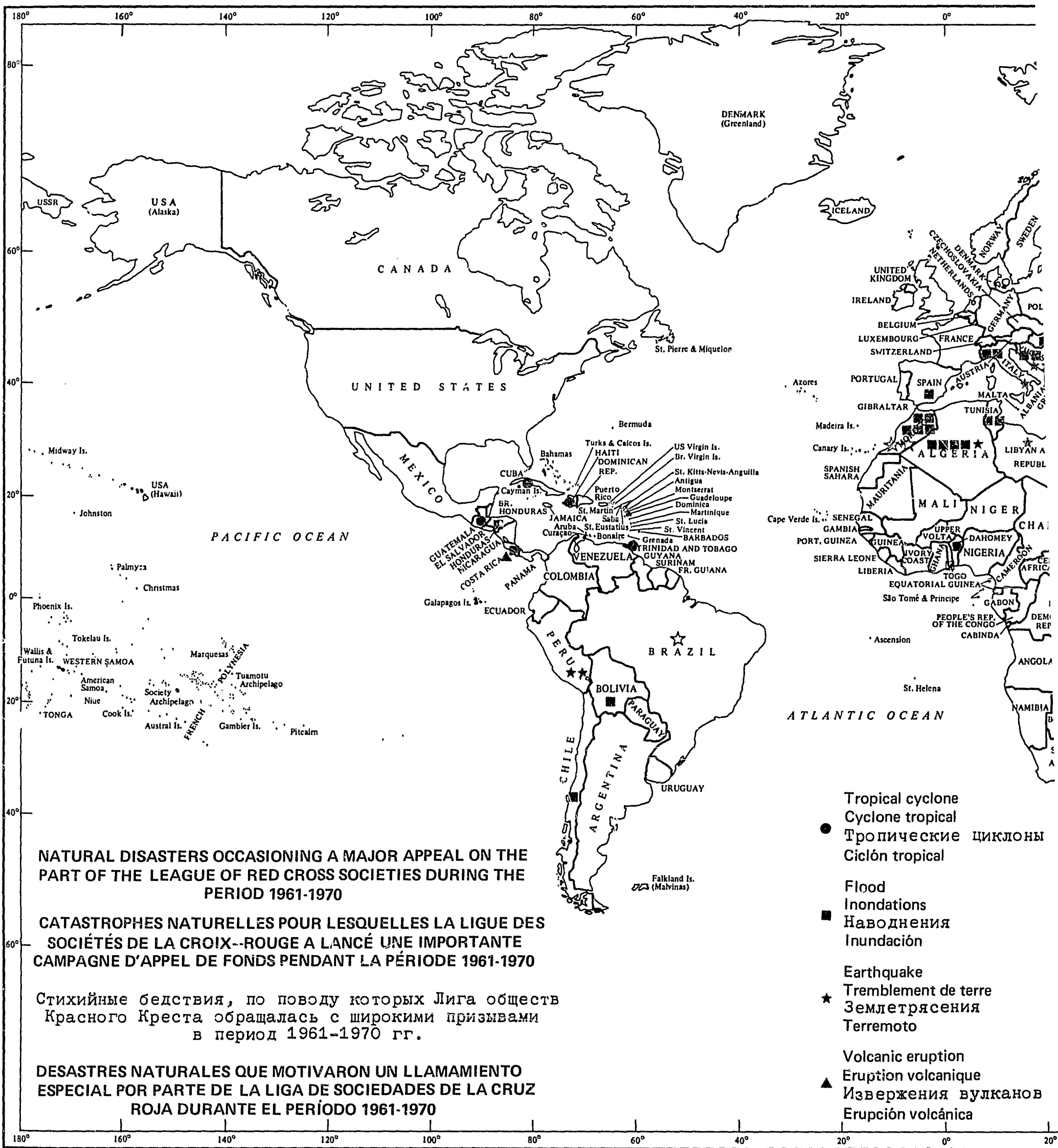
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in view of the wording of the General Assembly resolution and the circumstances in which man-made disasters often arise, this report does not refer directly to such emergencies.

18. The term "disaster-prone" countries, which occurs in many of the recommendations is used to mean countries with a history of recurrent natural disasters. These lie within the belts clearly illustrated by the map below.^{4/} A ring of countries bordering on the South China Sea are susceptible to typhoons, the Bay of Bengal to cyclones, and the western Atlantic, the area of the Caribbean Sea and the Gulf of Mexico to hurricanes. An earthquake-prone belt stretches from Iran through Turkey and Greece to Yugoslavia, another down the west coast of the Americas. Finally, there is a disaster belt along the northern edge of Africa.

^{4/} The distribution map shows the major disasters of the last decade from 1961 to 1970 inclusive, as recorded by the League of Red Cross Societies. The record is incomplete in so far as it lists only disasters occasioning an international Red Cross appeal and does not, for example, include disasters in Japan, the Soviet Union or the United States of America. With this qualification and in view of the fact that appeals are based on the need for outside assistance rather than on the magnitude of a disaster, the distortion is not important and the map makes plain the distribution pattern.

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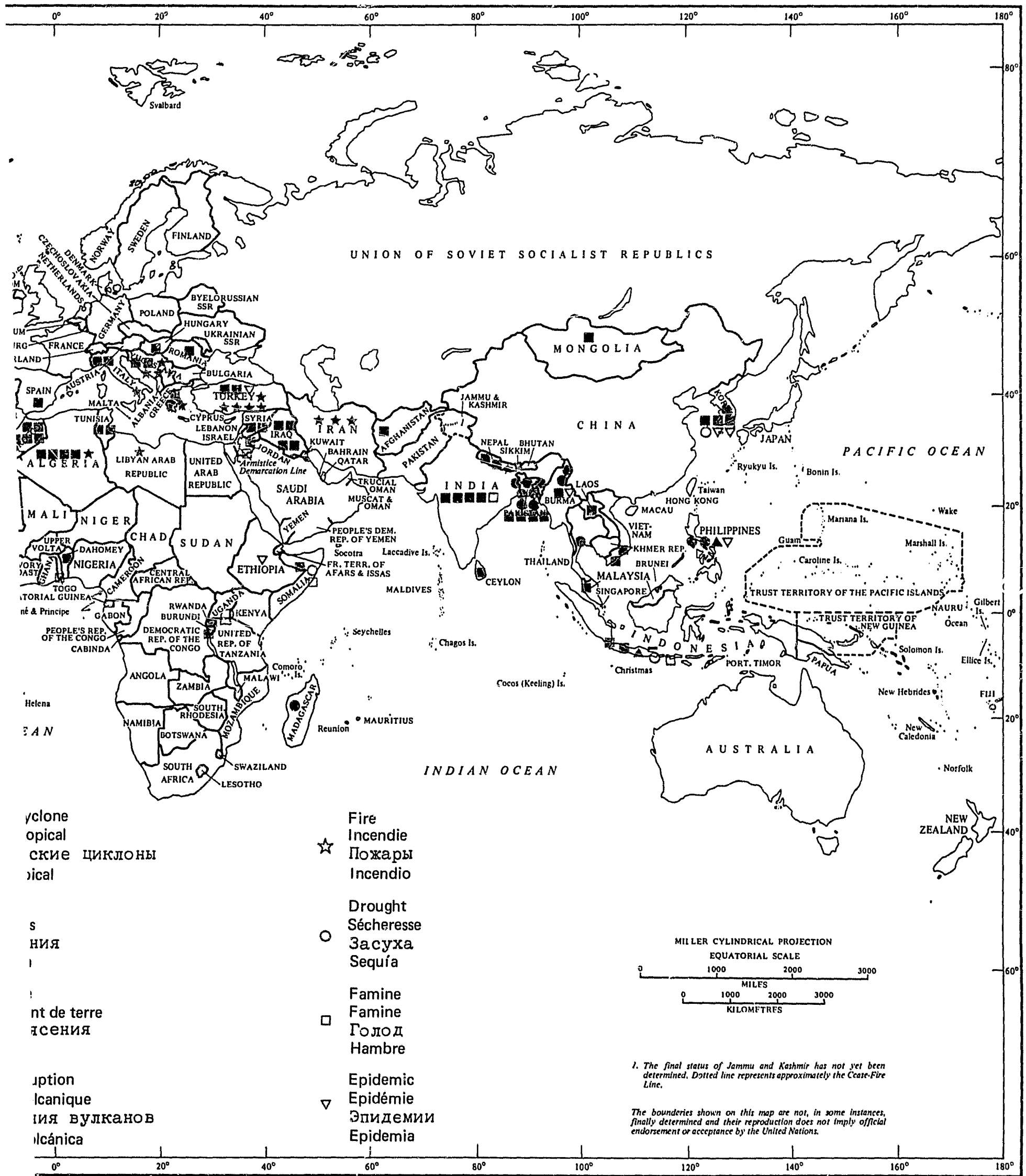
NATURAL DISASTERS OCCASIONING A MAJOR APPEAL ON THE PART OF THE LEAGUE OF RED CROSS SOCIETIES DURING THE PERIOD 1961-1970

CATASTROPHES NATURELLES POUR LESQUELLES LA LIGUE DES SOCIÉTÉS DE LA CROIX-ROUGE A LANCÉ UNE IMPORTANTE CAMPAGNE D'APPEL DE FONDS PENDANT LA PÉRIODE 1961-1970

Стихийные бедствия, по поводу которых Лига обществ Красного Креста обращалась с широкими призывами в период 1961-1970 гг.

DESASTRES NATURELES QUE MOTIVARON UN LLAMAMIENTO ESPECIAL POR PARTE DE LA LIGA DE SOCIEDADES DE LA CRUZ ROJA DURANTE EL PERÍODO 1961-1970

- Tropical cyclone
Cyclone tropical
Тропические циклоны
Ciclón tropical
- Flood
Inondations
Наводнения
Inundación
- ★ Earthquake
Tremblement de terre
Землетрясения
Terremoto
- ▲ Volcanic eruption
Eruption volcanique
Извержения вулканов
Erupción volcánica



I. PREVENTION, CONTROL AND PREDICTION OF DISASTERS

19. The main areas of international assistance, whether bilateral on a Government to Government basis, through international organizations or through voluntary agencies, are four: disaster prevention and prediction; preparedness and pre-disaster planning action during the emergency; and post-disaster rehabilitation and reconstruction (although the last two areas neither can nor should be sharply differentiated, since short-term emergency action impinges on reconstruction).

20. To begin with the first: measures to prevent or control the disastrous effects of natural phenomena depend on technological capacity and scientific knowledge. Since technology is powerless without knowledge, the scientific study of natural phenomena has a fundamental role.

21. In the field of seismological studies, UNESCO is associated with a number of national institutes. These include the Institute of Seismology and Earthquake Engineering in Tokyo (Japan), the Institute of Earthquake Engineering and Engineering Seismology of the University of Skopje (Yugoslavia) and the International Centre for Earthquake Engineering at Milan and Bergamo (Italy). In co-operation with the International Association of Seismology and Physics of the Earth's Interior, UNESCO was instrumental in establishing the International Seismological Centre in Edinburgh. This Centre collects seismological data from more than 600 observatories throughout the world, which it processes by electronic computer. A monthly bulletin is published containing data on earthquakes - 800-1,000 occur each month - as well as regular catalogues of earthquakes and an important bibliography of seismology. The Bureau central de seismologie at Strasbourg carries out studies of global and regional seismicity. Further UNESCO has stimulated the creation of regional seismological centres, of which the first was established at Lima (Peru) in 1968. Similar regional centres are planned for east Africa and South-East Asia to provide links between the seismological services and institutes of the regions as well as offering technological services and training courses. A survey of the seismicity of the Balkan region is being undertaken with UNESCO as executing agency of the UNEP by the Governments of Bulgaria, Greece, Romania, Turkey and Yugoslavia. Certain Governments also undertake research on their own account.

22. Since 1962, UNESCO has been sending reconnaissance missions to the sites of severe earthquakes as soon as possible after their occurrence. There have been

thirteen missions to date; three took place in 1970 to Gediz (Turkey), Luzon (Philippines) and Ancash (Peru). The objective of these missions was to gather as much seismic and technical information as possible with a view to reducing damage and loss of life in the event of future earthquakes. These earthquake study missions have been considered so successful that they were recently extended to wind-storm disasters. The first such mission was sent to the Philippines after the typhoon which struck Luzon in October and November 1970. The possibility of sending regular missions to flood and avalanche disaster areas is also under study by UNESCO.^{5/}

23. The International Tsunami Warning System operates in the Pacific and an International Tsunami Information Centre has been established in Honolulu where it is in a position to take advantage of the United States Coast and Geodetic Survey. Grants are provided by UNESCO to scientists from countries bordering the Pacific Ocean for study in this field. The same agency is also active in assisting research and study with regard to volcanic eruptions.

24. A number of projects financed by UNDP and executed by the United Nations, UNESCO, FAO, WMO and other organizations relate to the study, prevention or mitigation of natural disasters (see annex I). More Governments should be encouraged to give priority in their country programmes to projects of this kind. Where the technological capacity exists, scientific knowledge of destructive natural phenomena makes it possible to take a number of measures which may prevent or mitigate their disastrous effects. Among the most immediately useful and practicable of these are flood control, soil conservation, land reclamation, watershed management, afforestation, construction dams, irrigation and drainage, and the renovation of lands and banks. For capital development projects in all these fields WFP has provided food assistance.

25. A natural phenomenon is not itself a disaster, although it may cause one. Experience has shown that, although it may not be possible to forestall the calamitous impact of earthquakes and cyclonic storms, a number of precautionary measures to reduce both damage and loss of life are possible. A hurricane, for

^{5/} Experts were sent at the Government's request to Tunisia after the disastrous floods in October 1969 and to Iran after the avalanches in January 1970.

example, may travel across a well-built and protected area and fade harmlessly away; or it may strike a populated area with predominantly light housing structures and destroy thousands of lives and buildings. An earthquake discriminates in much the same way; the majority of deaths during earthquakes are caused by falling rubble and collapsing buildings. Measures to reduce the scale of disaster have been a matter of especial concern to the Centre for Housing, Building and Planning as well as the committees of the Economic and Social Council on the same subject which draws attention to the need for education as well as increased technical capacity and legislation.^{6/}

26. People must be made aware of the risks to which they may be exposed from earthquakes, floods and wind storms. They can be taught what measures they should take to prevent certain types of disaster and to minimize the effects of others. The training of specialists in building is a necessary adjunct.

27. On the basis of a knowledge of natural phenomena techniques can be applied to prevent or minimize their ill effects. These techniques belong to the fields of physical planning and building control as well as to technical training in general, and to research. However, for preventive measures to be effective, priorities have to be assigned and controls established. Without the appropriate administrative mechanism to enforce building controls and zoning ordinances, to police construction and other preventive measures, the advantages of the application of scientific knowledge and technology may easily be lost. Ultimately legislation is necessary.^{7/} Regulations have to be established as to where building may be permitted, the type of structures allowed and the uses to which soils and sites may be put. Legislation is equally necessary to govern the design and provision of utilities networks, power

^{6/} The Committee on Housing, Building and Planning at its fourth session recommended that "high priority should be accorded to preventive measures, including the preparation of building codes, the design of buildings resistant to natural disasters ... and the avoidance of areas of particularly high earthquake probability ... in physical plans" See Official Records of the Economic and Social Council, Forty-second Session, Supplement No. 4, para. 116.

^{7/} The "Report on the rehabilitation and reconstruction of housing and community facilities in cases of natural disaster" states that: "the universal experience of all countries with seismic codes has been that such codes are completely ineffective without a strongly enforced system of inspection and legal penalties." (E/C.6/52/Add.6) p. 4, appendix C, item 4 (c) 12.

plants, dams, bridges and other structures which are vital to community, region and country (see further annex II).

28. If the disastrous effects of natural phenomena cannot be prevented or controlled, it may be possible to mitigate their impact by predicting their occurrence. This gives time for defensive action and possibly the evacuation of people and livestock.

29. The relevant scientific research is at present conducted in three directions. The first is to determine, on the basis of scientific discoveries, where disasters are likely to occur and which are the specific danger zones. The second is to estimate the magnitude of the phenomenon to be expected and the probable frequency of its occurrence. The third is to give adequate warning.

30. Although progress is being made with regard to the prediction of earthquakes, volcanic eruptions and similar phenomena, the situation is still unsatisfactory. On the other hand, most countries have meteorological services able to provide warnings of wind storms and excessive rainfall liable to cause flooding.

31. The World Meteorological Organization has developed the World Weather Watch Plan to ensure that meteorological satellites and other technological developments play a full role in improving weather forecasts in general. General Assembly resolution 2733 D (XXV) on international co-operation in the peaceful uses of outer space endorsed the importance of implementing the World Weather Watch Plan and called for further action from WMO.^{8/} In areas of South-East Asia, prone to cyclonic storms, WMO already co-operates actively with ECAFE in a typhoon committee established in 1968 and a similar joint project is proposed to deal with cyclonic storms in the Bay of Bengal. A working group on tropical cyclones organized by the WMO regional association for Africa has recently completed a report on the present storm warning system and made recommendations for its improvement. A meeting to be held later in 1971 is to formulate an action programme, and a request submitted by Madagascar for a UNDP project to assist in meteorology and a cyclone warning system for the south-west Indian Ocean, is under consideration. In the Caribbean a highly

^{8/} "A tentative plan of action for the implementation by the World Meteorological Organization of United Nations General Assembly resolution 2733 (XXV)" was prepared by WMO in February this year. This also covers the points relevant to WMO in General Assembly resolution 2717 (XXV).

developed hurricane prediction system has been in operation for several years, using modern devices. By this means, WMO has provided technical assistance to some of the smaller countries in the region. Steps to organize a similar system for Central America and the adjacent Pacific Ocean are also necessary.

32. Under the World Weather Watch, WMO has introduced an arrangement for issuing storm warnings. In particular, under the International Maritime Forecasting Scheme, warnings for the sea areas of the world are disseminated: Special attention has been given to the requirements in the typhoon and Bay of Bengal regions of the joint WMO/ECAFE projects.

33. However accurate and effective warning systems may be, the warning has still to be communicated to those concerned. While at the international level WMO (and similar organizations) have a major responsibility, at the national level the Government itself is responsible. In most countries the meteorological service passes forecasts and warnings to an appropriate governmental authority, which then has the duty of ensuring that the necessary news and instructions are disseminated to other authorities and to the general public. No organization other than the national Government can assume responsibility for this key link.

34. The warning systems discussed so far are those which apply to sudden disasters. Slowly developing disaster situations present different problems and permit different solutions. With reference to these, FAO has established an early warning system as a means of preventing or at least controlling the development of famine and similar situations. A monthly survey and assessment keeps careful check on developing food shortages, thus enabling timely action to be taken.

Possibilities are being considered by the Committee on Outer Space of extending remote sensing techniques over wide areas in connexion with crop development.

II. PRE-DISASTER PLANNING AND PREPAREDNESS

35. The most advanced scientific observations and the most sophisticated satellite operated warning systems are of limited value unless the warnings reach the general public and the general public know what to do. This leads to the second and most important aspect of action in emergency situations: preparedness. A plan for emergency action is essential in all disaster-prone countries and desirable in others.

36. The League of Red Cross Societies and other relief organizations are unanimous in agreeing on the critical importance of the first twenty-four hours after a disaster and effective action in this period depends on the plans previously laid down. These organizations, as well as the United Nations, in resolutions and statements on the subject, have consistently stressed disaster preparedness - an emphasis which the Secretary-General strongly endorses. While lip service has been paid to the concept and some fifty-eight countries^{9/} are reported to have emergency plans or to be actively involved in preparing them, many of these plans are known to be incomplete and inadequate, and a great many countries, including some of those which are disaster-prone, have no national plans at all.

37. In view of the nature of any emergency, it is inconceivable that any plan could take all eventualities into account. But to minimize the confusion which so often occurs the plan should specify first who is to take charge and to whom all the different responsibilities fall. A complete pre-disaster plan should also cover other contingency arrangements, such as details of what emergency supplies are available locally, what can readily be obtained and what can be expected from abroad, as well as what is likely to be needed. Only the national Government can decide on the basic organizational arrangements involved in such a plan: who should do what and when, what the lines of communication and command should be and what reserves are available - including emergency communication systems and logistical support. Where necessary the government plan should also provide for building up the administrative infrastructure to ensure that aid reaches those in need. In many cases, of course, the armed forces or civil defence units will be expected to play a vital role, and this should be taken into account.

38. At the same time, it is important that voluntary organizations and donor Governments give some indication in advance of what they may be in a position to give, and how and when. This will necessarily be more vague than the provisions contained in the national plan of action but it should certainly be possible to go significantly beyond the present imprecise offers of assistance. Without more

^{9/} This figure is derived from the latest inquiry undertaken by the League of Red Cross Societies and a questionnaire circulated by the Council of Europe, as well as the replies received to the Secretary-General's request in his interim report (E/4853) of last year.

detailed advance specification, recipient Governments cannot always make the best use of these resources when the time comes.

39. In drawing up its plan the national Government would wish to know not only its own resources and what to expect from other countries but also the extent of emergency assistance which international organizations might make available. The United Nations system as a whole - with the major exceptions of UNICEF and to some extent WHO and FAC/WFP - is not equipped to provide emergency relief. The World Food Programme, although it may sometimes borrow from resources in the area, has usually to transport bulky food supplies to the scene of the disaster, and this takes considerable time. The principal organs equipped for international emergency relief are and will continue to be the League of Red Cross Societies, other voluntary organizations and church groups, and Governments.

40. Although the United Nations System is not geared for action of this kind, nor is it realistic to suppose that, given its structure, it could become so, it should be able to help in different ways. In preparing a pre-disaster plan, Governments may wish to consult the Red Cross Disaster Relief Handbook issued by the League of Red Cross Societies (Geneva, 1970), which contains detailed recommendations regarding many aspects of such a plan. They may also feel the need for expert advice. Although the decisions must rest with national Governments, the United Nations, in association with the relevant voluntary organizations, more particularly with the Red Cross, could assist in providing such advice. Such assistance can in some cases be financed from Technical Assistance funds if it is included in a country programme submitted to UNDP. The Secretary-General also has some funds available.^{10/} If there is a balance remaining at the end of any year on the amount

^{10/} Under General Assembly resolution 2435 (XXIII) the Secretary-General was authorized to draw up to \$100,000 annually from the Working Capital Fund; this was increased to \$150,000 for 1969 and 1970 under General Assembly resolutions 2608 and 2614 (XXIV). The following sums were allocated in 1970: assistance in kind to the value of \$10,000 to Madagascar (cyclone), \$15,000 to Turkey (earthquake), \$5,000 to the People's Democratic Republic of Yemen (floods), \$20,000 to Peru (earthquake), \$15,000 to Romania (floods), \$7,500 to Madagascar (cyclone), \$15,000 to Hungary (floods), \$15,000 to Pakistan (floods), \$20,000 to Pakistan (cyclone and floods), and \$12,000 to the Philippines (typhoons).

he is authorized to draw on the Working Capital Fund for emergency aid in connexion with natural disasters, he may use the balance "in amounts not exceeding \$10,000 per country, for assistance to Governments... in the elaboration of eventual preparations to meet natural disasters". A substantial sum was available for pre-disaster planning in 1970 due to the increased resources approved for 1969 by the General Assembly at its twenty-fourth session. Some interest was shown but only four projects^{11/} were actually approved for implementation, in three cases the funds being used to finance the services of an expert and, in the fourth, to finance a fellowship in pre-disaster planning. So many major disasters occurred in 1970, however, that the remainder of the funds available for use in 1971 is only \$15,500. If the United Nations is to play a major role in assisting countries in making disaster plans, additional funds should be specifically earmarked for the purpose, and greater flexibility in their use will be necessary since the needs of individual countries are bound to vary greatly. General Assembly resolution 2435 (XXIII) specified, in paragraph 8, that consideration should be given to obtaining, in the future, the necessary funds from sources other than the Working Capital Fund. A relatively small allocation could make an important impact and this is an area - unlike that of actual emergencies - where alternative resources are not readily available. Voluntary agencies, particularly the League of Red Cross Societies, have done extensive preparatory work in this field and would be able to provide much of the essential expertise and background material. The United Nations, under its programmes of technical assistance, could assist in several important substantive areas (for example, public administration, housing and planning, social welfare, fiscal matters) and by financing the services of experts and organizing regional (or national) seminars to help in developing the necessary understanding and knowledge. In this context the regional economic commissions might make a significant contribution.

41. The United Nations can assist in another way also. The national plan will have laid down the identity of the minister or high official holding ultimate responsibility for action in an emergency situation, but it is unlikely that he will have had any extensive relevant experience and he may find advice and assistance useful. Here the resident representative of UNDP is in a unique position to help. His primary role is, of course, in development, but as the representative of the

^{11/} In Argentina, Iceland, Mauritania and the Syrian Arab Republic.

United Nations system already in the country, already familiar with the local conditions and in contact with members of the Government, he should be able, first to impress upon the Government the importance of disaster preparedness and to assist - in conjunction with the representatives of the agencies concerned - in the necessary planning, training and other arrangements. Secondly, at the time of a disaster he should be in a position to inform the Government regarding assistance available through the United Nations system and might on occasion be able to help the Government in determining whether an appeal for outside assistance is warranted. He would further be the natural centre for local co-ordination among the United Nations organizations, and the Government might wish to participate and bring in representatives of donor Governments and voluntary agencies. Such a group ought to be formed before any emergency arises; when and if a disaster occurs, it should make it possible for all concerned to achieve a good measure of co-ordination through the sharing of information on needs, available resources and potential gifts.

42. To fulfil his role effectively the resident representative would himself be likely to require expert advice. Resident representatives are not expected to function as relief organizers in the normal course of their work nor are the qualities for which they are chosen those most required in situations of this kind. The resident representative in a given country should, of course, be aided by the local representatives of different United Nations agencies with competence in the field. Furthermore, since the League of Red Cross Societies sends one or more delegates to a disaster-stricken country whose national Red Cross has appealed for help, it is to be hoped that the Red Cross delegate, in addition to assisting the national Red Cross, would be able to work with and advise the resident representative. Where necessary, however, the Secretary-General should also be in a position to make available to the resident representative an expert with extensive experience of relief operations.

43. In the circumstances of an emergency, an accurate survey and assessment of the situation is usually very difficult, although more may often be achieved in the long run if a little more time is spent in establishing priorities. But reliable information is essential to the Government and to the general effectiveness of the relief action; it is in this particular area that the expert sent out by the

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United Nations might make his most useful contribution. He would be expected, in co-operation with country representatives of other organizations - the field officers of FAO and representatives of WHO and UNICEF in particular - to help the Government in undertaking an immediate preliminary evaluation of priority needs. He might subsequently assist in co-ordinating preparations for continued rehabilitation. It is not envisaged that he would remain in the country long, nor that he would be involved in the reconstruction effort.

44. With the establishment of a United Nations office for disaster assistance and the enhancement of the role of the resident representative at the national level, it should seldom be necessary for the Secretary-General to appoint a top-level special representative for a particular disaster as he has done on occasion in the past. Persons with the required exceptional combination of qualifications are in any event rare.

Stockpiling

45. The national disaster plan should make clear not only the organizational arrangements but also the nature of emergency reserves, since the national authority concerned inevitably must itself bear the brunt of first needs. Such reserves should, whenever possible, include cash and stockpiles of various kinds. There are cases where it is mandatory for part of the national budget to be set aside as an emergency reserve (in Chile, the figure is 2 per cent); a few other countries have arrangements to draw on reserves maintained for price stabilization or other purposes. Much depends on the nature and extent of national resources and, not least, the climate. There can be no universal rule as to which commodities should be stockpiled at the national level, but it is generally true to say that some bulk food reserves, or arrangements to procure these, are desirable and that stocks of heavy non-perishable emergency goods, such as tents and blankets, should always be on hand. However, the question of stockpiling transcends national frontiers and the extent and content of national stockpiles will be related to what may be available at the subregional, regional or global levels.

46. Operative paragraph 5 (c) of General Assembly resolution 2717 (XXV) refers specifically to "the stockpiling of emergency supplies, including medicines, non-perishable food-stuffs, blankets, tents and clothing, ...". The arguments for

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and against the stockpiling of emergency supplies vary according to the commodity. The cost-weight ratio and the perishability of certain food-stuffs (protein concentrates, multivitamins) as well as drugs and medical supplies make it sensible in most cases to ship these by air from a central store (or directly from manufacturers). The same does not apply to bulk food-stuffs, nor to tents and blankets.

47. The United Nations Children's Fund maintains in Copenhagen a warehouse with a wide variety of drugs, medical equipment and related supplies suitable for children and mothers. This stockpile, known as UNIPAC, serves the world. Supplies are immediately available for shipment by air to any disaster area. The total value of goods in stock at any one time exceeds \$5 million and a new warehouse is soon to be constructed which will enlarge the capacity of the stockpile and make possible the storing of food concentrates especially suitable for children. The same organization also has a pipeline of supplies moving directly from manufacturers to assisted countries from which supplies that might be particularly useful - not least vehicles - can usually be diverted for emergency aid. The World Health Organization maintains modest stockpiles of certain medical supplies in the regions as well as at headquarters. It also has special arrangements to obtain speedily from Governments and manufacturers additional medical and health supplies when necessary. While there may be a case for more extensive stockpiles of drugs and special foods at the regional level, there is little reason in most countries for stockpiles of this type at the national level. There may be one important exception: whereas adults can survive without food for several days, babies cannot. It is therefore imperative that disaster-prone countries maintain stocks of concentrated baby food - in most cases, evaporated milk is suitable - or make arrangements with the suppliers to ensure that emergency food for babies can be made immediately available.

48. The question of bulk food shipments presents different problems. Under the United Nations/FAC World Food Programme, emergency food aid is allocated in all types of emergency situation. The World Food Programme, however, does not at the moment maintain stockpiles although it is often able to reassign stocks intended for development which happen already to be in a disaster-stricken country. It may also be in a position to divert shipments of food-stuffs in or close to the disaster region. But these circumstances apart, WFP draws on the reserves

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maintained by individual donor countries which have then to be shipped to the country concerned and arrangements for shipping and the shipment itself are time-consuming operations. Regional stockpiles would help to solve the problem; an important proposal seeking to create an International Food Bank, to be administered by WFP from five strategically located food reserves, is now under consideration by the Inter-Governmental Committee of WFP. To be adopted, such a proposal would require the active support of Governments.

49. The League of Red Cross Societies maintains seven relief supply centres.^{12/} These depots, which have a capacity of from 50 to 100 tons each, contain a wide variety of non-perishable items usually needed in emergency situations (for example, tents, blankets, clothing, footwear). They can be made immediately available to any country or region. The contents are derived mainly from donations and the League encourages donor societies to replenish the stocks when these become depleted during a disaster. The number of depots of this kind should probably be increased and they should be established on the national or subregional level, as is, for instance, the combined project of the Red Crescent Societies of Morocco, Algeria and Tunisia.

50. The possibility of ITU maintaining a stockpile of portable transmitters and receivers, which might be of help to its member States in emergencies, is under study. The United Nations itself has in Pisa a supply depot where a limited stockpile of vehicles, sheets, blankets and similar items is maintained for use by United Nations missions; in emergencies it would be possible to use some of this material on a reimbursable basis. The depot, moreover, has a large capacity for additional storage, both indoors and out, and is staffed by personnel competent to handle materials relating to storage, packaging and distribution to any part of the world. The Pisa office has already been used to transmit assistance to the victims of the disaster in Sicily some two years ago; more extensive use could be made of these facilities in connexion with other disasters.

Training

51. Manuals for action and studies of specific aspects of disaster situations are extremely valuable to officials in disaster-prone countries. A manual entitled

^{12/} At Marseilles, Beirut, Mombasa (Kenya), Santiago de Chile, Barranquilla (Colombia), Curaçao (Netherlands Antilles) and Singapore.

Food and Nutrition Procedures in Times of Disaster,^{13/} was issued in 1967 by FAO and WHO has recently published a Guide to Sanitation in Natural Disasters.^{14/}

A comprehensive handbook of the League of Red Cross Societies deals extensively with training and the United Nations manual (now being issued in a revised version) may also be consulted.

52. To produce a good disaster preparedness plan or to improve an existing plan not only are such manuals needed but also people who are trained and experienced at various levels. There is at the moment a serious lack of personnel with technical qualifications and experience in this field. A few experts/advisers do exist but they are usually experts in a particular subject such as meteorology or seismology; there are very few "all-rounders".

53. Training programmes are indicated and this is an area where the United Nations system might make a major contribution. A number of national Red Cross societies have already arranged training courses for their members and the League of Red Cross Societies recommends strongly that this training be kept up to date and expanded. The League itself has organized Red Cross Training Institutes in Africa and plans to enlarge this programme to cover other parts of the "disaster belts". It urges further that Governments be specifically encouraged to train members of the police, civil defence and the armed forces in disaster action, and that the United Nations instruct its field personnel in the response expected of them in disaster situations.

54. Seminars in pre-disaster planning have recently been conducted in America by the Government of the United States, and the Government of Australia (in co-operation with the Australian Red Cross and the League of Red Cross Societies) is convening an international training course in disaster services administration this summer. Follow-up action sometimes presents problems after training programmes of this kind; the United States of America endeavours to provide continuing encouragement through its embassies in the countries to which seminar participants have returned. While the resident representatives would be able to provide follow-up and continuing support in the event of the United Nations undertaking similar training programmes, an effective solution might be to institute training

^{13/} FAO Nutritional Studies No. 21 (Rome, 1967).

^{14/} Geneva, 1971.

programmes at the subregional or national level. The regional economic commissions could play an important role in that task while the specialized agencies and, of course, the Red Cross would be able to contribute in their areas of expertise.

55. A useful measure at this stage might be a series of introductory seminars in certain regions to draw the attention of Governments to the cost and implications of natural disasters, the means which exist to prevent them or at least to mitigate their effects, and the arrangements proposed at both the national and international levels. Such seminars would have the advantage of being able to concentrate on the disaster types typical of the region and the appropriate arrangements for pre-disaster planning.

Assistance from abroad

56. In the past several years, in pursuance of the various resolutions of the General Assembly, a number of Governments have offered aid, including relief units, during natural disasters. Two Governments have officially notified the Secretary-General of the action they were prepared to take under the relevant resolutions: that of Norway, which advised the Secretary-General in July 1967 of the Norwegian Surgical Disaster Unit and a field hygiene team; and that of Sweden which stated in December 1967 that a technical cadre unit of the Swedish Stand-by Force for United Nations service was available. When for the first time a request for the services of the Swedish unit was received after the earthquake in Peru, an agreement was worked out between the Governments of Peru and Sweden and the United Nations, which gave the Swedish team certain rights regarding the use of the flag of the United Nations and certain other United Nations privileges. The unit found that this arrangement contributed greatly to its speedy arrival and effective operation. This was the first legal agreement of the kind and sets a precedent for providing a special United Nations status to relief units sent out after disasters under the general auspices of the United Nations. The full study on the legal status of disaster relief units made available through the United Nations, called for in operative paragraph 6 of General Assembly resolution 2435 (XXIII) and again requested in operative paragraph 3 of General Assembly resolution 2717 (XXV), is attached (annex III). Countries which request the services of this or other units that may be placed at the disposal of the

United Nations for use in times of disaster, may wish to signify in advance their willingness to accept mutual obligations of the type contained in the agreement.^{15/}

57. Relief units are but one of the many kinds of assistance given by Governments. Paragraph 2 of General Assembly resolution 2717 (XXV) reflects the paramount need in emergency situations for logistical support. It invites States Members of the United Nations and of the specialized agencies to communicate information to the Secretary-General "on the kind of facilities and services they might be in a position to provide immediately, if they so decided, in response to a request from him to participate in emergency relief operations, including, where possible, the number and type of vehicles or other means of delivering supplies to disaster areas by air, sea and land". Logistics often present the most serious obstacle to quick assistance. Many developing countries quite simply lack the resources to hold sufficient vehicles and aircraft in readiness for emergency use as part of their disaster preparedness arrangements. One of the most valuable contributions, therefore, which donor Governments could make would often be the provision of vehicles and aircraft, including helicopters and hovercraft in flood disasters as well as earth-moving equipment. In the case of aircraft, in particular, it is important to know their type, capacity and range as well as to have information regarding the availability of crews, maintenance personnel and special equipment. There is a precedent for the concerted provision of aircraft in emergencies and for the establishment of procedures whereby all relevant services are knit together in the Search and Rescue System of ICAO.^{16/} Under this system contracting

^{15/} Some of the lessons to be learned from the experience of the Swedish unit relate to emergency action and are discussed in detail below, see para. 65 below.

^{16/} A similar arrangement exists with regard to shipping. IMCO has established certain emergency procedures, by means of conventions and manuals, for providing assistance to ships in distress (from any cause, including heavy weather or other natural phenomena). These procedures include the use of an international distress signal, obligation on the master of a ship in the vicinity of the ship in distress to provide assistance, search and rescue and other emergency operations. The Merchant Ship Search and Rescue Manual (MERSAR) standardizes procedures for co-ordination during search and rescue, planning and conducting the search and maintaining the communications necessary in such operations.

States pledge themselves to provide specified types of aircraft in certain locations and to nominate authority to conduct search and rescue operations (which in some cases extend over the territory of more than one State). While it is recognized that Governments can rarely give precise details, it is hoped that those willing to place support of this kind at the call of the Secretary-General for use in relief operations, will be as explicit and detailed as possible in responding to paragraph 2 of the resolution. In many cases the aircraft will be military, but it might also be possible to make arrangements through Governments or directly with the airlines concerned for civil aircraft to offer free shipment of relief supplies on a "space available" basis and with special travel terms for relief workers.

58. Since helicopters cannot fly far without landing and even fixed wing aircraft have to refuel, the need arises for over-flying, refuelling and landing arrangements; the Convention on International Civil Aviation of 1944 covers the right of free flight for civil aircraft. Where necessary, special arrangements should so far as possible be negotiated before a disaster occurs, in order to minimize delays during the emergency period when sensitive issues are involved, tension is high and the time-factor of the utmost importance.

59. The same applies to arrangements concerning personnel. It is important that relief workers should not be hindered by delays in obtaining visas and other permits. While any sovereign State has a right to control the movement of foreigners within its frontiers, the wish to exercise this right may at times conflict with the need for urgent assistance and the willingness of persons from abroad to help. The problem does not usually arise in connexion with personnel attached to the United Nations agencies^{17/} or the Red Cross. Likewise, relief supplies of the United Nations agencies and the Red Cross are normally exempt from the payment of customs duties, but duty-free arrangements should be the rule in respect of relief supplies generally and again such arrangements should be negotiated beforehand.^{18/} The office for disaster assistance in the United Nations,

^{17/} See reference to roster of volunteers drawn from staff members, para. 88 below.

^{18/} The Government of the Federal Republic of Germany in its reply to the Secretary-General's note of 29 January 1971 states that "it would be useful if recommendations of the United Nations could be prepared to facilitate assistance measures, *inter alia*, by the proposal of a standard agreement for mutual aid, by the proposal of regulations for the entry into the country concerned, for the custom formalities, for requests to foreign relief personnel and for matters regarding liability and expenses". /...

which is described below, may be expected to play a major role in negotiations on matters such as those just mentioned, in co-operation with resident representatives in their respective countries.

60. Donor countries for their part could do more not only by specifying the probable resources (including funds) which they would expect to be able to contribute and the channels for their deployment but also by establishing their own co-ordination machinery for all types of assistance from both government and national private (voluntary agency) sources.

III. ACTION WHEN A DISASTER STRIKES

61. Every year a number of minor natural disasters occurs in different parts of the globe which do not call for multiagency aid. In some, the action of the Government and the local Red Cross society is adequate. For others, the League of Red Cross Societies mobilizes help through a well-established procedure of appeals to different national Red Cross societies. Other voluntary agencies and a few Governments may also make special contributions and one or more of the international organizations may be asked to provide some aid. The World Health Organization for example, may be called upon for needed serums; and in the case of slowly developing emergencies, such as droughts and crop failures which call mainly for food, FAO and WFP are usually able to meet the needs.^{19/}

62. This paper is concerned less with such cases than the ways in which the international community can better organize itself to help in major catastrophes for which existing procedures and resources are inadequate - and of which there have been all too many examples in recent years. The nature of an emergency can never be wholly foreseen and provided for, nor can the best of plans ever be applied without adaptation and improvisation. Some of the basic elements of the plan of a disaster-prone country, however - the establishment of a co-ordinating authority, the assignment of official responsibilities, arrangements with the Red Cross society and/or organizations dealing with civil defence, the availability of some emergency supplies and so on - may be expected to hold good. What is important is that a framework for emergency action will exist and a habit of

^{19/} For a description of types of action taken by different United Nations organizations up to the end of 1969 see the Secretary-General's interim report (E/4853).

co-operation and consultation among authorities at all levels will have been established. Likewise, within the donor countries and among the humanitarian agencies certain improvements in organization and co-ordination may be expected. For example, it should be easier to avoid the dispatch of goods, equipment and personnel for which there is no confirmed demand; the arrangements made by the United Nations and the League of Red Cross Societies may also render it less necessary for individual donor countries and organizations to send their own delegates or observers to the disaster areas.

63. When a disaster strikes, the United Nations (through the head of the new office for disaster assistance) would have an essential role to play in co-ordinating, and where necessary stimulating, help from the United Nations system - each organization acting as rapidly as possible in accordance with its resources and constitutional obligations - and also in obtaining and transmitting to Governments and organizations directly concerned the best available information about relief requirements, in approaching potential donor Governments or organizations as regards the assistance they can provide, and in facilitating so far as possible transport and other arrangements for the channelling of relief. Thus the United Nations office would support and supplement, but in no sense replace or duplicate the work of those United Nations organizations that are equipped to help, while co-operating as closely as possible with the League of Red Cross Societies which must continue to assume primary responsibility for the organization of international relief at the first stage of the emergency. Disaster relief work is one of the principal tasks of the League; unlike the United Nations, it can draw upon considerable resources in the form of funds, supplies and personnel for such work and can take action immediately. The League, moreover, can assist the national societies in playing their proper role, and - as mentioned above - it is its practice always to send to major disaster areas one or more Red Cross delegates to assist the local Red Cross society in organizing relief. Major voluntary agencies concerned with disaster relief, acting through the International Council of Voluntary Agencies, are at the moment in active consultation with the League with a view to creating a disaster information and operations centre for non-governmental organizations in Geneva.

64. The United Nations should endeavour to encourage and facilitate in every way assistance efforts both by Governments (some of which have recently been providing

such aid on a very large scale) and by private bodies of all kinds whether associated with the Red Cross or not. Such private efforts include the work not only of the major voluntary organizations, such as the World Council of Churches, Caritas Internationalis, Oxford Committee for Famine Relief (OXFAM), but also that of smaller church and community groups, "mercy teams", "flying doctor" services, civil volunteer helicopter units and so forth.

65. The United Nations office should aim at ensuring full use of the resources of such agencies and facilitating rapid and efficient action on their part by every means at its disposal - including representations to Governments if necessary for the solution of difficulties encountered.

66. The moment a major disaster occurs, news media throughout the world can be counted on to alert public opinion, and Governments and voluntary agencies will be anxious to act at once. The Government of the stricken country is likely to appeal to all potential donors for help. It may ask for the same things from several sources or request assistance without specifying precise needs - its estimates often being based on scanty information.

67. One of the crucial functions of the United Nations office for disaster assistance would be to obtain, in co-operation with the Government concerned, the most reliable information about the relief and other needs that cannot be met from within the stricken country and the priorities attaching to those needs, to disseminate this information to those concerned and to provide so far as is feasible, and in conjunction with the League of Red Cross Societies a pool of information as to the action being planned or taken by all sources of external aid. Close liaison with the information clearing-house arrangements of the Red Cross would be maintained at all times. As stated earlier, the United Nations office must be in a position to send, at a few hours' notice, someone with great general experience of disasters to the scene, to assist, among other things, in assessing needs. but for information on needs and their priorities, the office will also rely heavily on the local arrangements - worked out if possible in advance - for co-operation between the Government and the resident representative of UNDP, assisted by the representatives of the United Nations agencies and in close contact with the Red Cross and the voluntary organizations.

68. These proposals should help the Secretary-General in the discharge of his more personal responsibilities in cases of major disasters. He would have the

advice of the office as regards, for example, the need to convene (in conjunction with the Director-General of FAO where serious food shortages were involved) the representatives of Governments directly concerned for consultations as to how unfilled major needs might be met, or to issue a special appeal for assistance from the world community. The action of Governments, United Nations agencies and voluntary organizations would likewise be facilitated, while their freedom of action would in no way be prejudiced. There is indeed much the United Nations can do to help Governments and non-governmental agencies to co-ordinate better among themselves. Such help can be provided through the variety of measures already referred to, including (a) efforts to expedite and render more accurate the information available about needs and plans for meeting them; (b) bringing the major voluntary agencies into closer consultation with the United Nations agencies. The improvement in co-ordination among intergovernmental organizations can only be effective if accompanied by a similar improvement in co-ordination within both disaster-prone and "donor" countries and among "donor" countries themselves. Should the latter wish to establish among themselves consultations, formal or informal, for this purpose, the services of the United Nations office and the different United Nations agencies would be at their ready disposal. As the clearing-house functions of the proposed United Nations office develop, the Office should also contribute to reducing the possibility of serious gaps or duplications in the aid provided. To make the office effective in these functions it would be essential that for their part Governments and voluntary agencies, as well as United Nations organizations, communicate immediately to it, by telephone or cable, whatever action they proposed to take or had taken.

69. The effectiveness of a central clearing-house for information bringing reports and requests from the stricken country together in one place, with details of assistance given and offers of aid, presupposes a sophisticated communication system. The United Nations would normally rely on existing commercial and government telecommunications systems.^{20/} In emergencies^{21/} these might be

^{20/} The possibility of special arrangements for the use of satellite communications systems is currently under consideration.

^{21/} The International Committee of the Red Cross in Geneva has world-wide radio transmitters and wave lengths which were used in the Jordan relief action and which were made available to the League of Red Cross Societies in East Pakistan. The Committee is at present exploring with ITU and the League the possible expansion of its existing radio facilities.

enhanced by the radio network stretching from Asia through Africa and Europe to North America which the United Nations has at its disposal (there is no permanent installation in South America). It should be possible at comparatively little expense to arrange for portable transmitter-receivers to link a disaster zone with the permanent United Nations radio stations (Bangkok, Rawalpindi, Jerusalem, Addis Ababa, Geneva and New York) and the United Nations could provide the personnel to service these on a stand-by basis. Such arrangements would, of course, require the consent of the telecommunication authority of the country concerned. The International Telecommunication Union meanwhile is engaged on a study of emergency telecommunication facilities which it hopes to complete by the time the General Assembly takes up the matter of disaster assistance in the autumn.

70. The United Nations office would be closely concerned with the position of units made available by Governments or otherwise for disaster relief assistance.

71. The experience of the Swedish team, which returned only recently after six months in Peru, has shown the value of technical assistance of this kind especially in rehabilitation. It has also demonstrated some of the problems. Not least of these is the difficulty in an emergency in deploying and making immediate use of a large number of technical experts. The effectiveness of technical experts often depends on an appropriate labour force and logistical support; they probably need to bring their own means of transport to meet their immediate requirements and even heavy equipment, since this is often in drastically short supply. They are also likely to need funds for local purchase of essential supplies. While professional and technical experience has proved to be of the greatest value, when co-operation between donor and recipient Governments, it must be of the right kind and available at the right time and in the right place. Experience suggests that it might be best in future for a small advance party (of not more than three or four men) to establish the priority sectors and an appropriate plan broadly adapted to the capabilities of the team before unit commanders arrive to make specific arrangements and determine the needs for equipment, material supplies and personnel. The Norwegian Surgical and Hygiene Team in Peru found that the particular services it could offer were not the most needed, and other relief units have had similar experiences on the occasion of other disasters.

From time to time the United Nations office could help to avoid such situations by ensuring full consultations with the Government concerned, the League of Red Cross Societies and the competent United Nations agency (for example, WHO in case of medical teams) before teams are deployed. Given a knowledge of what is really wanted, teams of professionals and technicians can be made available provided the stricken country is ready to absorb them. The presence of more relief volunteers than are needed not only occupies valuable space, time and transport but is also liable to have a depressing effect on morale generally.

IV. REHABILITATION AND RECONSTRUCTION

72. The emergency phase can itself be subdivided into first aid, which relates primarily to rescue and immediate relief, and the restoration of communications, basic services (including water and electricity supplies), health services and other amenities and the provision of temporary housing and other ad hoc arrangements. In giving first aid, the Red Cross is pre-eminent; in other aspects of the emergency stage some United Nations organizations have a considerable part to play and during longer term rehabilitation and reconstruction the role of the United Nations system is a major one. Its contribution lies not only in the material and personnel inputs but, perhaps as significantly, in the framework which the system offers for helping to stimulate and co-ordinate the efforts of different donors.

73. In addition to UNICEF, NDP and the United Nations itself many United Nations organizations, especially FAO, WHO, UNESCO and the ILO, have a long record of post-disaster rehabilitation and reconstruction work in their areas of competence. Reference to their contributions in past years has already been made in the Secretary-General's interim report last year (E/4853) and the present resources of the United Nations system are set out in the manual mentioned earlier.^{22/} However, certain aspects deserve notice in the present context.

74. Although the distinction has been made between the emergency phase and that of rehabilitation assistance, experience has shown that the seeds of long-term reconstruction are often sown as soon as relief work begins. This applies in particular to temporary housing and shelters which have a tendency, in many developing countries, to achieve permanence. Disasters may provide opportunities

^{22/} See foot-note 1.

for improved planning and development, and such occasions to exploit the positive effects of a disaster should not be lost. The rebuilding programme, which has often to be started rather quickly, may involve a re-appraisal of pre-disaster arrangements; it may require the introduction of new techniques (although there is always a danger of introducing methods inappropriate to local conditions), it may even impinge on existing codes and legislation. Finally, it may provide the stimulus to build more disaster-resistant housing and to undertake such associated preventive measures as the construction of dams and dikes, designed to forestall a recurrence of the disaster.

75. Although UNICEF is active in the emergency phase, the main work of that organization actually falls in the rehabilitation period. This generally involves the provision on a relatively accelerated scale of traditional UNICEF assistance - supplies, equipment and funds for the training of local personnel - to help in the re-establishment of basic services for mothers and children, especially those of health, education and community development. As in the case of housing and planning, it is sometimes possible after a disaster for Governments, with the advice and assistance of UNICEF, to take the occasion to experiment with new approaches, making more efficient use of scarce resources, both human and material. The extent of UNICEF aid in the case of major disasters depends on responses to appeals to Governments and the general public for special voluntary contributions. These are usually launched as soon as possible after a disaster strikes and the specific nature of assistance required becomes known; in 1970, special contributions amounted to some \$9 million.

76. In financial terms the largest United Nations contributor to emergency relief is the United Nations/FAO World Food Programme. But since its contribution is usually in the form of bulk food and requires shipment, it may play a larger role during the rehabilitation period than at the immediate emergency. In the past three years, some \$20 million worth of bulk food have been dispensed annually. The present provisions are felt to be adequate for emergency requirements, except in the case of major catastrophes when the Secretary-General of the United Nations and the Director-General of FAO are in a position to issue a world-wide joint appeal for additional resources. The FAO/WFP contributes a certain amount of assistance apart from food - mostly by sending out specialists. Apart from

assisting the resident representative in assessing the post-disaster situation, FAO/WFP specialists may also help in elaborating appropriate food rations, training local field staff and advising on food distribution. However, the major contribution of WFP is in food and in projects where food is used as capital. The Programme has a further role in rehabilitation activities through labour-intensive reconstruction works, for which a rapid approval procedure has been authorized by the Inter-Governmental Committee. The Food and Agriculture Organization - with the co-operation of UNDP - is able to assist in various ways, for example, by the provision of quickly maturing seed varieties. Similarly, UNIDO - as evidenced in the case of the Romanian, Peruvian and East Pakistan disasters - is able to provide assistance in regard to the rehabilitation of industrial units, the planning for the relocation of plants as appropriate, and the provision of technical services.

77. The United Nations Development Programme, in addition to its projects in the field of disaster prevention and control (see paragraph 24 and annex I), has begun to play an increasingly active role in providing disaster assistance. With the exception of the allocation of funds through FAO during the emergency phase in East Pakistan for the provision of seeds, nylon twine, pesticides, spraying equipment, veterinary supplies and other emergency items as well as expert assistance, and the purchase of seed also through FAO in the case of Romania, UNDP aid has been directed towards the long-term rehabilitation and reconstruction of devastated areas. During 1970, UNDP financed assistance to Hungary, Pakistan, Peru, Romania, the Yemen Arab Republic and Yugoslavia. It covered a wide range of activities in such fields as planning, housing, transport, agriculture and health education. In the case of Hungary and Peru, UNDP special missions were involved in attempting to identify specific projects for urgent implementation; consultant missions were also sent to Romania and Yemen.

78. Under recent decisions of the Governing Council UNDP is now able to speed action and to relieve the financial burden on the Governments facing critical disaster situations. The measures used include:

(a) Temporarily diverting, for emergency purposes, resources not immediately required by on-going development projects within a country, as in the cases of Romania and East Pakistan, such projects to be reimbursed at a later date;

(b) Waiving on an ad hoc basis the recipient Governments' obligations to contribute towards local operating costs for Special Fund projects, particularly in the affected areas;

(c) The allocation by the Administrator of limited resources from the Revolving Fund to finance urgent requests for assistance;

(d) Authorization by the Governing Council to increase the size of the Revolving Fund, an action taken following the disaster in Peru;

(e) The initiation by the Administrator of pre-project activities of an urgent nature within the financial guidelines established for these activities by the Governing Council;

(f) Increasing the level of the UNDP/Technical Assistance country target, as was done in the case of Yemen for 1971.

79. The emergency assistance thus provided by UNDP, in response to specific requests from the affected country, can generally be considered either as additional assistance or as a charge on the on-going UNDP-assisted programme in the country. In each case, however, every effort is made to ensure that UNDP emergency assistance is fully co-ordinated with, and integrated into, a country's comprehensive UNDP assistance programme. While procedures for the provision of emergency assistance by UNDP in connexion with natural disasters have not been specifically defined, the consensus adopted by the Governing Council at its tenth session contains reference in paragraph 12^{23/} to the need for sufficient flexibility in the assistance of UNDP, so as to meet unforeseen needs in particular countries or exceptional situations, which country programmes could not take into account.

80. The World Bank Group has shown itself ready "to give serious consideration to requests for assistance from Governments of countries affected by natural disasters relating to their programmes for reconstruction and development" as called for by operative paragraph 9 of resolution 2717 (XXV). It is not in a position to provide emergency relief. Its responsibilities are concerned not with the immediate effects of a disaster but the long-term effects on development,

^{23/} See Official Records of the Economic and Social Council, Forty-ninth Session, Supplement No. 6A, p. 36, para. 12.

and in this area the World Bank is able to make an important contribution to disaster assistance often at an early stage. It participated actively in the rehabilitation and reconstruction programmes after the Peru and Pakistan disasters as it had done earlier in the case of Chile. The Bank contributed two experts to the United Nations mission to Peru and a road construction loan was approved only fourteen weeks after the earthquake, to assist in improving communications to and within the area most heavily affected by the disaster.

81. The cyclone in East Pakistan illustrates the new approach of the Bank. Immediately following the disaster, the Bank decided to mobilize experts from headquarters and missions in the field as an emergency task force to assist the Government in preparing a major reconstruction programme. Within a matter of weeks a comprehensive programme was produced that was estimated to cost \$180 million; this involved the restoration of homes, water supplies, farms, livestock, fishing and vessels, roads, flood-control embankments, shelters, telecommunications and storm warning facilities. Two months after the cyclone a \$25 million International Development Association (IDA) credit was approved to finance projects to be prepared for carrying out key elements - repair, rehabilitation and protective measures - of the reconstruction programme.

V. ORGANIZATIONAL ARRANGEMENTS AT THE INTERNATIONAL LEVEL

82. Paragraphs 4 (a) and (b) of resolution 2717 (XXV) request the Secretary-General's conclusions and recommendations regarding the capacity of the different organizations of the United Nations system to contribute assistance, and the areas where this assistance might be increased or made more effective. The contributions which individual agencies are now equipped to make are set out in the document "International action in cases of natural disasters; a manual on the resources and procedures of the United Nations family",^{24/} of which a revised edition is now being prepared. The need for an intensification or expansion of many of these substantive activities has been referred to in earlier sections and will be summarized in the conclusions and recommendations. This section is mainly concerned with the question raised in paragraph 4 (c) of the

^{24/} See foot-note 1.

resolution 2717 (XXV), namely the organizational arrangements required to strengthen the capacity of the United Nations system, including questions of co-ordination and leadership in regard to all phases of disaster assistance.

83. The Economic and Social Council in its resolution 1049 (XXXVII) specifically requested the Secretary-General to "take the lead in establishing, in conjunction with the specialized agencies and the League of Red Cross Societies, appropriate arrangements for assistance in rapid and concerted relief", and this task, together with action on behalf of the United Nations system vis-à-vis the General Assembly and the Economic and Social Council, individual Governments and other organizations, must remain at the centre of the responsibilities of the United Nations Secretariat. For the purpose of ensuring co-ordination, the extensive network of bilateral consultations among the agencies concerned and between many of them and the Red Cross, is supplemented on two levels: first, from the focal point at United Nations Headquarters an endeavour is made to keep the United Nations agencies, and all voluntary organizations concerned currently informed - in times of emergency, by daily telephone calls and cables - of the plans and activities of the United Nations system; secondly, interagency arrangements and problems are reviewed by the Administrative Committee on Co-ordination and its Preparatory Committee. In accordance with paragraph 9 of General Assembly resolution 2435 (XXIII), the Administrative Committee will continue periodically to review programmes and projects throughout the United Nations system which relate to natural disasters and will include appropriate recommendations on the subject in its regular reports to the Economic and Social Council.

84. Last year the Administrative Committee on Co-ordination arranged a special meeting of the heads of agencies concerned to clarify and develop their respective roles and methods of co-operation. Two of the conclusions of that meeting need to be underlined: the first, that when a disaster strikes, speed of action is essential and arrangements for close co-ordination must not impede or delay prompt assistance action by each organization within its powers and resources: the second, that regular contacts must be organized and maintained, at the top management as well as the working level. Such regular meetings at the level of the executive heads concerned must be an essential element in the new

organizational arrangements required to bring about maximum co-ordination, co-operation and pooling of knowledge and resources within the United Nations system - arrangements which, furthermore, must take full account of the individual functions and constitutions of the United Nations organizations and build so far as possible on what has been developed over the past several years.

85. The focal point established in the United Nations Secretariat last autumn has made it possible to improve somewhat the functioning of the United Nations system in this area - particularly as regards the exchange of information on plans and activities within the United Nations system and contact with the resident representatives. But it lacks the resources to do more, no additional posts having been created or credits voted. If the Secretary-General is to implement the proposals contained in the present report, a permanent office in the United Nations, as envisaged in paragraph 4 (c) of resolution 2717 (XXV) of the General Assembly, is indispensable. It would be concerned with every aspect of these proposals, including the consultations with Governments, the provision of assistance to Governments relating to planning and preparations, the promotion of scientific and technological studies, the organization of relief when disasters strike, the collection and dissemination of information, co-ordination among the United Nations organizations and the Red Cross and such arrangements for co-ordination among the United Nations organizations and the Red Cross and such arrangements for co-ordination as donor Governments and voluntary organizations might wish to make with it. Its responsibilities in regard to rehabilitation and reconstruction programmes would normally be limited to those associated with emergency situations or planning to meet future emergencies. It should at the same time maintain full information regarding all phases of international action taken or under way in connexion with a particular disaster, and assist the Secretary-General in preparing such reports on international assistance as the Council or the General Assembly may require. The office would be in permanent touch with the United Nations agencies concerned, as well as with the non-governmental organizations concerned, in particular the League of Red Cross Societies.

86. Leaving aside for the moment the question of the over-all direction of the office, the Secretary-General considers that the office must have, as an indispensable minimum, three professional officers and three assistants/secretaries.

together with an appropriation that would permit calling on the services of high-level advisers for short periods, as necessary, to work in countries where a major disaster has occurred (see paragraph 44 above). With a staff of this strength, the Secretary-General believes that it should be possible to make an important contribution. At the same time it does represent a minimum, below which he would not recommend the United Nations to assume increased responsibilities in this area. The United Nations means of action, particularly in emergency situations, will always be quite limited and there will inevitably be a danger of its involvement raising false hopes. Without reasonable resources for staff, travel and such equally essential items as telephone and cable communications, such hopes would certainly be disappointed.

87. The level and functions of the three professional officers proposed would be as follows: a senior official (probably at the Director level) would be in over-all charge of the office and its activities and have special responsibilities for negotiation concerning the handling of assistance on the part of recipient countries and arrangements with countries likely to be on transit routes, as well as with potential donor Governments concerning the aid they might be able to offer. A second official (probably at the Senior Officer level) would need to be expert in pre-disaster planning and disaster preparedness arrangements; his work would be primarily with the Governments of disaster-prone countries, he would be expected to organize and participate in seminars on the subject and to assist Governments on the spot in preparing their pre-disaster plans as well as in developing, in association with experts provided under technical assistance, the necessary administrative infrastructure. The work of the third officer (probably at the intermediate level) would be largely a computer type inventory operation; he would be expected to organize, keep up to date and ensure the appropriate dissemination of the mass of detailed information relating, for example, to conditions in disaster-prone countries as well as potential assistance sources which it would be essential for the office to have available. This information would include facts of geography, population, climate, the agricultural cycle, clothing and food habits of the disaster-prone countries, their disaster histories and all relevant aspects of existing disaster plans as well as details of available aid resources within the United Nations system and outside.

88. The Secretary-General would hope to arrange for some staff to be made available from other parts of the Secretariat to support the work of the office in time of particular pressure. Plans are already under way to establish a roster of volunteers drawn from experienced staff members of the United Nations and United Nations organizations who could be made available at very short notice. It is proposed to extend the roster also to voluntary organizations.

89. As regards the general character and functions of the proposed office, the Secretary-General finds himself in close agreement with the suggestions set forth in the memorandum on "International disaster relief" submitted by the Government of the United Kingdom of Great Britain and Northern Ireland (E/L.1404) a memorandum to which he is indeed greatly indebted. The differences between the two positions are essentially of emphasis. First, the United Kingdom memorandum envisages that a "disaster relief co-ordinator" should be appointed, who, while maintaining continuing contact with Governments, United Nations agencies and voluntary organizations, would be in a position of considerable independence and authority and report only to the General Assembly. The Secretary-General tends to see the new office as one element - though a very important and central element - in a system of international co-operation involving the agencies, the resident representatives of UNDP, the Red Cross and other voluntary organizations, as well as the United Nations Secretariat and the Secretary-General himself. Secondly, while the United Kingdom memorandum attaches special importance to the role of the proposed co-ordinator in organizing relief at the time of a disaster, the Secretary-General gives no less weight to the role of the new office in promoting the study, prevention, control and prediction of disasters, as well as in planning and preparedness before disasters occur. He feels, moreover, that there are aspects of rehabilitation and reconstruction with which the office may have to concern itself.

90. There remain the location and the over-all direction of the proposed new office - two questions that are by no means unrelated. When decisions regarding the focal point for United Nations action on disasters had to be made last year, the Secretary-General attached importance to having that focal point at the Headquarters of the United Nations and close to himself. New York furthermore offered the advantage of being the headquarters of UNICEF as well as of UNDP, and of having permanent missions from almost all States Members of the United Nations.

The creation of no new high-level post seemed necessary, since the Assistant Secretary-General for Inter-Agency Affairs was in a position to take on what was in fact largely an extension of his existing responsibilities for co-ordination. Liaison with the specialized agencies in Geneva, as well as with the League of Red Cross Societies, the International Committee of the Red Cross and the voluntary agencies located there, was facilitated by the Director-General of the Geneva Office and his staff on behalf of the focal point in New York.

91. This basic pattern might be maintained in regard to the new office; to change it radically would involve some dispersion of authority with regard, for example, to interagency co-ordination. Furthermore, some of the disadvantages of the location of the office in New York could no doubt be overcome (for example, the Secretary-General of the League of Red Cross Societies has indicated that a liaison office of the League might be established in New York). On the other hand, the claims of Geneva as the seat of the League and of several organizations concerned with disaster assistance are strong; and the new functions envisaged for the proposed office are different not only in scope but in nature from those hitherto performed in the United Nations Secretariat. The work of the new office would, it is true, partly retain its co-ordinating character, but much of it would be substantive and actively administrative twenty-four hours a day; and the over-all direction of the work would require a great deal of initiative as well as time and attention. The Secretary-General hopes that the supervisory responsibility could be assured by an existing Under-Secretary-General or Assistant Secretary-General. But whether this would prove feasible is not certain. Nor would the Secretary-General wish at this stage to take a definite position as to whether the new office should operate from New York or from Geneva. On these matters he feels that he should await the views of the Member States, particularly as regards the precise extent and nature of the responsibilities they would wish the new office to assume.

VI. FINANCE

92. It is clear from the preceding sections that there are many aspects of the whole problem of more effective assistance in connexion with natural disaster on which the United Nations is in a position to make useful, and in some cases vital,

contributions at small cost. Yet some additional expenditure will be unavoidable and the Secretary-General feels that the United Nations itself, as the symbol and instrument of human solidarity and the international community should be prepared to accept as part of its regular budget the essential costs of the new permanent office that is envisaged. The present expenses of the United Nations in connexion with natural disasters include the authorization given to the Secretary-General under General Assembly resolutions 2435 (XXIII) and 2608 (XXIV) to draw on the Working Capital Fund for emergency aid to Governments of countries stricken by natural disaster, and to meet the expenses associated with the disbursement of these funds and the activities of the focal point. The figure for emergency aid for the calendar year 1971 has reverted to \$100,000 from \$150,000 in 1969 and 1970; this provision will no doubt be reviewed by the Economic and Social Council and the General Assembly. It is proposed that an additional amount of \$25,000 be provided each year specifically for assistance to Governments in disaster planning and preparedness. The cost of the staffing and operations of the new office may be estimated at the figure of approximately \$205,000 for a full year (see annex IV).

93. The actions recorded and recommendations made in this paper may also require some increase in the regular budget of certain specialized agencies, one of which - the World Meteorological Organization (WMO) - has a proposal in this sense before its financial organs. But it is hoped that to a very large extent, the intensified activities of the United Nations family can be financed by voluntary funds - more especially through UNICEF, WFP and UNDP.

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94. As regards the broader problem of financing assistance to countries victims of natural disasters, operative paragraph 11 of Economic and Social Council resolution 1546 (XLIX) invited the Secretary-General "to consider the role within the United Nations system of the Emergency Fund for Disasters, recommended in Economic and Social Council resolution 1533 (XLIX), in providing assistance to countries stricken by natural disasters". Resolution 1533 (XLIX) had recommended that States Members of the United Nations should establish an Emergency Fund for Disasters to be made up of voluntary contributions by all States Members of the United Nations and members of the specialized agencies. While the first task of the Fund would be to provide assistance to Peru through the Secretary-

General, it was understood that it would provide assistance in connexion with other disasters in the future. The Secretary-General was requested "to undertake to promote this Fund" and in the summer of 1970 he drew the attention of all Member States to the resolution. It must be noted that the Fund was not conceived as being administered by the Secretary-General or any United Nations organ. Its role and the modalities of its operation, within the United Nations system would therefore be different from those of the various United Nations funds, including funds-in-trust, and special arrangements would need to be devised in order to ensure co-ordination between the Fund and the United Nations system, and to provide the Secretary-General with the necessary authority in order that expenditure could be made in accordance with established United Nations financial procedures.

95. In 1964, the Economic and Social Council, in its resolution 1049 (XXXVII), had requested the Secretary-General to examine various methods by which he might provide assistance to countries stricken by natural disasters. These included the establishment of a United Nations fund to be financed from voluntary contributions. In his report the following year (A/5845, p. 11) the Secretary-General concluded that "the possible advantages of such a Fund would be outweighed by its disadvantages". In reaching this conclusion he had been influenced by the experience of the International Relief Union established under the aegis of the League of Nations in 1927. The Union had had at its disposal an "initial fund" of contributions from States parties to its Convention. This Fund was never large enough to permit significant relief assistance to be provided and voluntary contributions were not readily forthcoming when not associated with specific disasters. Certain practical difficulties associated with a disaster fund to be paid up in advance were also pointed out by the Secretary-General of the League of Red Cross Societies. Among his arguments were that donors in general would hesitate to contribute large sums on the hypothesis of possible future disasters, the character and location of which could not be foreseen; and that the existence of a disaster fund, even if quite modest, would have the effect of inhibiting further contributions when a disaster did occur. The International Committee of the Red Cross has expressed similar views.

96. If these arguments are still considered valid, they might be met in part by substituting for a paid-up fund, a system of voluntary pledges by Governments

on which the Secretary-General could draw in case of need, in consultation with the Governments concerned. Such a system of cash pledges might be considered as complementary to the emergency assistance in "facilities and services" which General Assembly resolution 2717 (XXV), paragraph 2 envisages that Members of the United Nations may be in a position to provide, if they so decide, in response to a request by the Secretary-General.

97. Another suggestion has been put forward by the International Committee of the Red Cross in a letter dated 15 April 1971 "what would appear to be useful is a fund, of \$1 or 2 million at the most, on which the relevant international bodies could draw to provide emergency relief. Such drawings on the fund could be made pending the availability of government contributions to the relief work, and the fund should be reimbursed from contributions received. In other words, the fund would only be to make it easier for a relief operation to get under way, but not to finance it".

98. In any event there is a real and urgent need for a substantial increase in the funds available for immediate use in case of emergency. It is to be hoped that Governments which do not already do so, will find it possible to set aside or otherwise provide such funds, for use at home or abroad. Similarly, they are strongly urged to make such ready funds available to national Red Cross societies as well as to the League of Red Cross Societies itself. The resources available to UNICEF for emergencies have recently been increased; consideration might be given to increasing the resources of WFP for the same purpose. At the same time UNDP, in special circumstances, is now able to speed action and relieve the financial burden on countries faced with major disasters and the World Bank has stated that it is ready to consider seriously requests for assistance from disaster-stricken countries relating to their programmes for reconstruction and development as explicitly suggested in paragraphs 8 and 9 of General Assembly resolution 2717 (XXV).

99. It should be emphasized finally that financial assistance to countries after a disaster has occurred involves many elements in addition to particular funds and credits. One has only to recall in this connexion the importance attached by the personal representative of the Secretary-General for Peru in his interim report (E/L.1356) to the negotiations which he helped to promote with individual credit institutions and other sources of finance. The advice of both the

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International Bank for Reconstruction and Development (IBRD) and the International Monetary Fund (IMF) might be of particular value to those involved in such negotiations.

VII. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

100. An attempt has been made in this report to outline some of the ways in which international assistance in connexion with natural disasters might be strengthened. It has identified four main areas to which such increased assistance might be directed: prevention, control and prediction; planning and preparedness; the better organization of relief action when the emergency occurs; rehabilitation and reconstruction. While a Government should be able to count on the help of the international community, provided through Governments, the League of Red Cross Societies and other voluntary agencies or the United Nations organizations, in its preparations against or its efforts to meet such emergencies, the primary responsibility for protecting the life, health and property of people within its frontiers and for maintaining the essential public services rests with that Government. International assistance can only supplement, and will depend very largely for its effectiveness on, the efforts of the country itself through its Government or through such organizations as its national Red Cross society.

101. It is to be hoped that apart from particular defensive or preventive measures required to meet recurrent catastrophes, disaster-prone countries will take steps, where necessary, to:

(a) Establish a pre-disaster plan (or improve an existing plan) specifying, inter alia, the organizational arrangements in case of disaster (including areas of ultimate responsibility and chains of command), the available national resources and sources from which other emergency needs can be met;

(b) Strengthen the national Red Cross society or similar body;

(c) Train officials and others for action in disaster situations and to execute particular aspects of the plan, and strengthen the administrative infrastructure in general; establish stockpiles of non-perishable emergency supplies and, where possible, cash reserves as well as, in certain cases, stockpiles of food;

(d) Take legislative or other steps to facilitate the receipt of aid (covering import duties and restrictions, visas, overflight and landing rights and the like as well as special conditions in respect of relief units),

(e) Endeavour to improve national warning systems, where necessary, and arrangements for ensuring that the warnings reach the public;

(f) Ensure by legislation where relevant, that the minimum risk is run by people living (and housed) in disaster-prone areas;

(g) Consider including in their country programmes projects relating to the study, prevention or mitigation of natural disasters.

102. It is hoped that for their part the Governments of countries which expect to give aid will:

(a) Increase the volume and scope of the aid they are prepared to provide, including (i) special equipment and logistical support (vehicles, aircraft including helicopters, hovercraft and other vessels, specifying as far as possible the nature and extent of this aid, with details regarding their type, capacity, range, crews, maintenance and accessory equipment of the vehicles and aircraft); (ii) Relief units, with information concerning the equipment these expect to bring and the timing of their contribution;

(b) Assist, where possible, in establishing appropriate stockpiles (in co-operation with the Red Cross or otherwise);

(c) Take steps to arrange for the co-ordination of their assistance and that of national voluntary organizations and encourage co-ordination among the latter;

(d) Endeavour to co-ordinate their own contribution with that of other donor Governments;

(e) Co-operate with the United Nations permanent office, keeping it advised of the available resources, and informing it immediately of their deployment after a disaster.

103. The League of Red Cross Societies and other international voluntary organizations should be encouraged to develop their traditional activities, not least in

(a) Strengthening national Red Cross societies and similar bodies;

(b) Helping in the preparation or strengthening of national pre-disaster plans, the basic elements of which have been recommended in the Red Cross Disaster Relief Handbook of the League of Red Cross Societies;

(c) Assisting in the establishment of appropriate stockpiles at the subregional and national levels;

(d) Assisting in training programmes and seminars;

(e) Strengthening co-operation among themselves and with their Governments and contributing to the over-all co-ordination of assistance through close co-operation with the United Nations in the field (in particular between Red Cross delegates and resident representatives) and generally through constant and full exchange of information.

104. Individual United Nations organizations should continue to act promptly in the cases of disaster in accordance with their resources and constitutional obligations. Over the years, they have built up a considerable capacity for assisting Governments at such times, and for contributing to the control or mitigation of the effects of disasters. Among recent developments one may note with satisfaction that the UNICEF emergency reserve has just been increased; that UNDP is now able to speed its assistance to disaster-stricken countries as well as supporting projects related to the study, prevention or mitigation of natural disasters; and that IBRD has likewise given greater assistance to countries in connexion with the long-term effects of disasters.

105. Many areas of activity will, on the other hand, require strengthening if the United Nations system (in co-operation with donor Governments, the League of Red Cross Societies and other voluntary agencies) is to play the larger role expected of it. In addition to information services and training programmes, these areas include:

(a) UNESCO activities in scientific research relating to natural phenomena (especially earthquakes, volcanic eruptions, avalanches and the like), including the extension of reconnaissance missions to flood and avalanche disasters;

(b) WMO activities in scientific research relating to natural phenomena (especially wind storms), in association with United Nations regional economic commissions, where geographically relevant, with a view to improving

(i) Preventive/protective measures;

(ii) Predictive and warning systems;

(c) United Nations activities in developing improved methods of building and planning to mitigate or prevent the disastrous effects of natural phenomena and in developing the United Nations communications network;

(d) WHO action in emergency situations and in pursuit of its basic long-term objectives, including activities both before and after the occurrence of a disaster, for the improvement of health infrastructure, in continued collaboration with other organizations in the United Nations system and with the League of Red Cross Societies;

(e) FAO/WFP provision for potential increase in resources to meet needs in years when a large number of emergencies occur;

(f) ITU interest in developing the availability of transmitters and equipment for use in emergencies;

(g) WMO interest in exploring the possibility of having mobile meteorological stations for use when existing facilities have been destroyed or disrupted by a disaster;

(h) ICAO research and rescue service, which might be applied in certain natural disaster situations; also arrangements for special overflying, refuelling and landing rights.

106. To stimulate further action in the various areas in question and to help in ensuring that international assistance is as effective and well co-ordinated as possible, will call for a concerted effort among the organizations of the United Nations system. The role of the competent organs of the United Nations - including that of the Secretary-General himself - in ensuring co-ordination will be of particular importance. As regards the specific actions envisaged at the national level, the resident representatives of UNDP, aided by the technical expertise of the agency and UNICEF representatives, should play a major part in their respective countries of assignment, while the central responsibility will fall on the permanent office in the United Nations envisaged in General Assembly resolution 2717 (XXV). The nature and extent of the functions of that office have already been outlined in detail. Here it may suffice to say that:

(a) the office must maintain continuing contacts with the Governments of potential recipient and donor countries, as well as countries of transit; with the United Nations aid-giving agencies and programmes which will be expected to maintain close contact with the office and keep it advised of all relevant activities, as well as with the League of Red Cross Societies and other major voluntary agencies; and with the resident representatives, to whom it must be in a position to provide the support of experienced staff in time of emergency;

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(b) it must be able to arrange assistance to disaster-prone countries in pre-disaster planning and disaster-preparedness arrangements;

(c) it must collect, digest, keep up to date and disseminate to those concerned the mass of detailed information concerning the affected country and its resources which is essential for the effective organization of assistance, as well as concerning available aid from within and outside the United Nations system;

(d) top level meetings should take place as necessary between the head of the office and the executive heads of relevant United Nations organizations, and furthermore the operation of the office as well as the programmes of individual United Nations organizations, should be kept under the constant review of the Administrative Committee on Co-ordination;

(e) while the office, at least at the outset, can be quite small, it would in the Secretary-General's view be better not to increase United Nations involvement in the area of assistance in connexion with natural disasters if the funds necessary for the modest staffing and other costs required (including facilities for rapid communication) cannot be guaranteed. The risk must be avoided of raising hopes that cannot be fulfilled.

107. The important questions of the location and the over-all direction of the proposed office are left open pending expression of the views of Member States, particularly as regards the precise nature and extent of responsibilities Member States would wish the office to assume.

108. It is recommended that a modest financial provision be made by the United Nations in respect of assistance requested by disaster-prone countries in pre-disaster planning and preparedness. Stress is also laid on the need for a substantial increase in the funds available to individual Governments, national Red Cross societies and the League of Red Cross Societies for immediate use in case of emergency. More generally, if the objectives of the General Assembly resolutions are to be adequately met, there will be need in the coming years for increased - and in some fields greatly increased - contributions from Governments, voluntary organizations and intergovernmental organizations.

Annex I
 UNITED NATIONS DEVELOPMENT PROGRAMME PROJECTS
 RELATED TO NATURAL DISASTERS

E/4994
 English
 Annex I
 Page 1

Project	Agency	Approved by Governing Council	Project duration (years)	Project costs (US dollar equivalent)		
				Total	Governing Council earmarkings ^{1/}	Government counterpart contribution ^{1/}
1. Earthquakes						
JAPAN						
International Institute of Seismology and Earthquake Engineering	UNESCO	Jan. 1962 (Sept. 1968)*	5	1,676,800	702,500	974,300
International Institute of Seismology and Earthquake Engineering (Phase II)	UNESCO	June 1968	4	1,479,400	674,400	805,000
PERU						
Urban Planning for the Reconstruction of Chimbote	UN	Jan. 1971	2 1/3	1,398,400	1,075,400	323,000
YUGOSLAVIA						
Skopje Urban Plan	UN	June 1964 (June 1966)*	1	4,847,400	1,475,400 ^{2/}	3,372,000
Training Centre for Building Construction Personnel, Skopje	ILO	June 1964 (Oct. 1967)*	3	1,146,600	485,600 ^{2/}	661,000
EUROPE						
Survey of the Seismicity of the Balkan Region ^{3/}	UNESCO	Jan. 1970	4	2,918,800	668,800	2,250,000
				13,467,400	5,082,100	8,385,300
2. Locust control						
INTERREGIONAL						
Desert Locust Project ^{4/}	FAO	Dec. 1959	9 1/2	4,211,000	4,211,000 ^{5/ 6/}	^{5/}
AFRICA						
Research on African Migratory Locusts ^{7/}	FAO	Jan. 1969	6	1,336,900	811,900*	525,000
MADAGASCAR						
Research on the Control of the Migratory Locust of the Malagasy Republic	FAO	Jan. 1970	3	974,800	632,800	342,000
				6,522,700	5,655,700	867,000
3. Typhoons						
Pilot Project for the Improvement and Expansion of Typhoon and Flood Warning Services, China	WMO	June 1965	4	1,360,800	642,800	718,000
4. Weather warning, flood prevention and control						
Hydrometeorological Institute for Training and Research, Algeria	WMO	Jan. 1969	4 1/3	4,142,700	1,317,700	2,825,000
Development [and Improvement] of the Meteorological and Hydrological Services, Bolivia	WMO	Jan. 1970	2 1/2	1,279,300	697,300	582,000
Expansion of Meteorological and Hydrological Services, Burma	WMO	Jan. 1962 (Jan. 1967)*	3	1,118,574	517,574 ^{2/}	601,000
Flood Warning System, Cambodia	UNESCO	Jan. 1968 (Feb. 1970)*	1	156,000	130,000 ^{2/}	26,000
Hydrometric and Hydrometeorological Stations, Chile	WMO	Dec. 1959 (Sept. 1965)*	4 1/2	1,815,700	633,500 ^{2/}	1,182,200
Colombian Meteorological and Hydrological Service	WMO	Jan. 1967	5	5,793,400	1,208,400	4,585,000
Meteorological Training Centre, Kinshasa, Congo (Dem. Rep. of) ^{11/}	WMO	June 1964	5	1,684,700	796,700	888,000
Expansion of Meteorological and Hydrological Services, Ecuador	WMO	Dec. 1959 (Mar. 1965)*	4	1,204,300	423,500 ^{2/}	780,800
Institute of Tropical Meteorology, Poona, and International Meteorological Centre, Bombay, India	WMO	Jan. 1963 (Mar. 1967)*	3	1,837,550	707,550 ^{3/}	1,130,000
Central Meteorological Institute, Israel	WMO	Dec. 1959 (Apr. 1964)*	4	779,029	300,029 ^{2/}	479,000
Land and Water Resources Development in Southern Malawi	FAO	Jan. 1966	4	3,826,500	2,623,500	1,203,000

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Project	Agency	Approved by Governing Council	Project duration (years)	Project costs (US dollar equivalent)		
				Total	Governing Council earmarkings ^{1/}	Government counterpart contribution ^{1/}
4. <u>Weather warning, flood prevention and control (continued)</u>						
Expansion of Meteorological and Hydrological Services, Mongolia	WMO	Jan. 1968	5	3,661,100	1,039,100	2,622,000
Faculty of Agricultural Engineering Agricultural University, Peru,	FAO	Dec. 1960 (Jan. 1967)*	5	985,500	633,500 ^{2/}	352,000
Meteorological Training and Research, Manila, Philippines	WMO	Jan. 1967	5	2,063,600	980,600	1,083,000
Expansion of Meteorological Services, Thailand	WMO	Jan. 1962 (Jan. 1967)*	3 1/2	581,300	330,300 ^{2/}	251,000
Meteorological Institute for Research and Training, Cairo, U.A.R.	WMO	Jan. 1964 (Dec. 1970)*	5	1,823,900	421,900	1,402,000
Studies on the Regulation and Control of the Vardar River, Yugoslavia	UN	June 1965 (July 1969)*	2 1/2	6,102,300	1,479,300	4,623,000
Flood Forecasting and Warning System on the Niger River Basin ^{3/}	WMO	Jan. 1970	1 1/2	490,000	433,000	57,000
Expansion and Improvement of Hydro-meteorological and Hydrological Services in the Central American Isthmus ^{2/}	WMO	Jan. 1966	5	6,172,000	2,915,000	3,257,000
Improvement of Caribbean Meteorological Services ^{10/}	WMO	June 1966	5	3,407,000	2,081,000 ^{12/}	1,326,000 ^{12/}
Expansion and Improvement of the Meteorological Service, Cuba	WMO	June 1970	4	3,537,900	1,549,900	1,988,000
Strengthening of the National Meteorological Service, Tunisia	WMO	Jan. 1971	4	4,401,300	1,147,300	3,254,000
Meteorological Institute for Research and Training, (Phase II), U.A.R.	WMO	Jan. 1971	2	2,077,400	1,143,400	934,000
East African Institute for Meteorological Training and Research, Regional	WMO	Jan. 1971	5	2,561,600	1,360,600	1,201,000
Meteorological Training in Latin America, Regional	WMO	Jan. 1971	5	830,600	550,600	280,000
Total Section 4:				62,333,253	25,421,253	36,912,000
5. <u>Drought</u>						
Water Supply, Sana'a and Hodeida, Yemen	WHO	June 1970	1 1/2	942,900	847,900	95,000
Total All Sections				84,627,053	37,649,753	46,977,300
* Date of completion of fieldwork.						

Footnotes to pages 1 and 2

1/ The value of the governments' counterpart contribution is an estimate. The governments' cash payments towards local operating costs are included under "Governing Council earmarkings" and not under "Government counterpart contribution".

2/ Final earmarking.

3/ Participants: Bulgaria, Greece, Romania, Turkey and Yugoslavia.

4/ Participants:

Afghanistan	Iran	Mauritania	Syria
Algeria	Iraq	Morocco	Tunisia
Cameroon	Israel	Niger	Turkey
Chad	Ivory Coast	Nigeria	Uganda
Ethiopia	Jordan	Pakistan	United Arab Republic
France and the French Community	Kenya	Saudi Arabia	United Kingdom
Gambia	Kuwait	Senegal	United Republic of Tanzania
Ghana	Lebanon	Sierra Leone	Upper Volta
India	Libya	Somalia	Yemen
	Mali	Sudan	

5/ The Governments are contributing in cash the equivalent of \$1,390,850 which is included under "Governing Council earmarkings".

6/ Includes supplementary earmarkings of \$345,000 approved by Governing Council at its June 1970 session.

7/ Participants: Cameroon, Central African Republic, Chad, Congo (People's Republic of), Congo (Democratic Republic of), Dahomey, Gambia, Ghana, Kenya, Ivory Coast, Mali, Mauritania, Niger, Nigeria, Sierra Leone, Senegal, Sudan, Uganda, United Republic of Tanzania and Upper Volta.

8/ Participants: Guinea and Mali.

9/ Participants: Costa Rica, Guatemala, Honduras, Nicaragua and Panama.

10/ Includes supplementary earmarkings of \$459,000 approved by the Governing Council at its January 1971 session.

11/ Includes supplementary earmarkings of \$584,300 and additional government counterpart contribution of \$863,000 approved by the Governing Council at its June 1970 session.

12/ Includes supplementary earmarkings of \$459,000 and government counterpart contributions of \$508,000 approved by the Governing Council at its January 1971 session.

* (See under Research on African Migratory Locusts) * Includes supplementary earmarkings of \$155,400 approved by the Governing Council at its January 1971 session.

Annex II

PHYSICAL PLANNING AND BUILDING LEGISLATION RELATED TO
THE PREVENTION OR MITIGATION OF NATURAL DISASTERS

1. The present annex is intended to provide background information on the kind of physical planning and building legislation that is required in areas of high risk to minimize or prevent loss of life, personal injury and damage to property and in general to safeguard capital investments in plant and equipment. It also deals with special legislation covering the preparation of government organizations for rescue and relief operations.

2. Disasters of natural origin are usually the results of geophysical or meteorological disturbances, the causes and mechanism of which are relatively well understood now even though their occurrence and the detailed consequences cannot be predicted. Whether the event reaches disaster proportions or not depends on many factors besides the severity of the natural forces concerned. Very many of the casualties and much of the destruction occurring in a natural disaster are due to ignorance and neglect on the part of individuals and public authorities. They are often, but not always, a result of poverty and lack of resources.^{1/} As a result, damage is much greater than need be, and through action in the field of education, administration, research and techniques Governments can substantially reduce it.

^{1/} The United Nations/UNESCO report entitled "International co-operation in the field of seismological research, seismology and earthquake engineering" discussed the general effects of earthquakes on buildings, and stated:

"There is considerable evidence to the fact that the large number of casualties and the vast destruction caused by earthquakes are for the most part due to the inferior construction techniques and the poor and weak materials used. A study of many of the buildings that have withstood severe earth movements indicates that buildings made of good materials and following sound engineering practice, even when not designed to resist horizontal forces, often do resist earthquakes remarkably well."

See Official Records of the Economic and Social Council, Thirty-fourth Session, Annexes, agenda item 14, document E/3617, p. 8.

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3. A distinction must be drawn between legislation for measures to be taken (a) in advance of a disaster to minimize its scope; (b) following a disaster to facilitate prompt relief and reconstruction.

4. Physical planning and building control legislation applicable to any area, whether it is prone to disaster or not, cover both categories, since their objectives are good land-use distribution, "layout" and building design and construction. They should have due regard to all the requirements of the area in prevailing and expected circumstances. Special disaster precaution regulations, if required, can apply in either planning or building legislation to certain parts of the country.

5. Category (b) includes special legislation for emergency powers and procedures to be adopted when a disaster occurs. Although the measures provided for are applied when the disaster strikes, pertinent legislation must be passed in advance of a disaster and is, therefore, a vital part of disaster prevention and alleviation.

Physical planning legislation

6. Physical planning legislation is an invaluable tool in disaster prevention at three levels: regional land-use planning, urban planning and site planning (detailed layout of buildings). In regional and national physical planning the small-scale siting of urban development and other land uses is controlled over wide areas; in some cases it extends over the whole of a country. Where such planning exists, areas liable to flood may either be preserved for uses least affected by floods or be left undeveloped. Areas of seismic activity can be zoned according to the degree of risk, and developed or not developed accordingly.

7. The use of land within a town can be controlled in the same way as within a region. By making use of modern research findings in seismology, this control can be extended to earthquake protection. In the replanning of cities destroyed by earthquakes, it is possible to define fairly precisely areas of varying degrees of seismic activity. In general, particular attention must be paid in seismic zones to the geological conditions of the strata and the topographic characteristics of the ground. If possible, buildings should not be erected on extremely steep

inclines, especially of soft or loose material or alluvial soil. If such construction cannot be avoided, regulations should establish the type of foundation and type of structure that can be erected on such soils.

8. The damage caused by earthquakes to public utilities, particularly to water-pipes and sewers, should be carefully considered. Their layout and system should be such as to avoid the possible interruption of service or contamination. Alternative systems for water distribution should be provided in cities or earthquake zones, to make it possible to extinguish the fires which often follow an earthquake and play a big part in the destruction.

9. By such means the risk of disaster and the scale of a disaster, should it occur, can both be greatly reduced. To achieve this control of development physical planning legislation is required, but is not enough by itself. Qualified staff is required to prepare and revise the plans as changing situations demand, and to see that they are adhered to.

Building legislation

10. Appropriate building codes and building controls are the most important legislative requirements. Lack of suitable codes or failure to enforce a code has been a major contributing factor in many of the disasters reported. Each country which has not already done so should enact enabling legislation to empower the responsible minister to make building regulations and apply them to any desired area; the regulations should be administered by the appropriate local government authority. Regulations should be introduced only where they can be enforced; in the office, by professional qualified men, and on the building site by trained inspectors. There are several examples of model legislation and model regulations for different kinds of building including small buildings resistant to earthquakes and wind storms. Although most of them are applicable only to developed countries, these models could usefully be examined by other countries for possible adaptation.

11. Building codes, their improvement and enforcement, raising the level of technical competence and improving building techniques are all important aspects of disaster prevention whether the potential cause is earthquake, tropical cyclone or accidental fire. One special aspect of disaster prevention to be discussed here

is the problem of existing structures. The measures mentioned heretofore only affect new construction which constitutes a minor portion of the stock of buildings of a town or country. The majority of the existing buildings may, therefore, be inadequate in cases of disasters. As the knowledge of earthquake engineering becomes more widespread in a particular country or region, it will be possible to undertake surveys of structures built before the introduction of anti-seismic codes to determine how well they are likely to resist an earthquake or a hurricane. Buildings, after inspection, could be placed in three main categories: those to be demolished as soon as possible because of seismic or hurricane risk; those whose faulty construction can be remedied;^{2/} and those which, because of their form or construction, or because they were carefully designed, can be considered as moderately resistant to earthquakes or hurricanes. It would be best for such a programme of review, clearance or improvement, to form part of a wider programme of review of the building stock of a town or country. A survey on these lines is currently being carried out on State-owned buildings in New Zealand; it may possibly be extended to buildings which are privately owned. Similar surveys are needed in areas where there is a risk of tropical cyclones.

Emergency powers

12. The interdependence of disaster prevention, rescue and relief operations and reconstruction needs to be stressed. A number of countries have enacted

^{2/} The effects of earthquakes on buildings have been found to be cumulative owing to the deterioration that they produce in some of the elements of a building. This is a point which deserves particular attention in connexion with the repair of damaged buildings. In fact, certain damages in the structure of a building such as broken connexions, broken piers, partially displaced floors, are not always repairable from the seismic point of view, in other words, they can no longer be considered as meeting anti-seismic requirements (even if originally such requirements were met). This fact must be taken into consideration in estimating the damage caused by an earthquake. In spite of the fact that it may appear to be more economic to repair and preserve certain buildings, it should be remembered that they might not be safe in case of another earthquake. From the point of view of long-term investment, therefore, it is more convenient to spend a little more to meet the anti-seismic conditions by strict adherence to anti-seismic norms, which should be adopted without delay.

legislation which enables Governments to act quickly in a natural disaster. Some have set up organizations which are able to make plans for rescue and relief operations before the occurrence of any disaster; others have empowered authorities with specific responsibilities to prepare plans and act quickly in a disaster. Two main lessons may be derived from the experience of these countries.

13. First, many countries with experience of disasters have found a need for comprehensive disaster legislation to strengthen the legal, administrative and financial powers of responsible authorities, in order to prevent disaster, mobilize resources for rescue and relief, alleviate hardship and suffering and facilitate reconstruction and rehabilitation. Secondly, differing forms of governmental organization, including different relationships between national and local public authorities and the role of non-governmental organizations (especially the Red Cross) mean that the form of the legislation has varied from country to country.

14. Many countries with past experience of serious disasters have not yet enacted special disaster legislation. For them, the preparation of legislation and the planning of appropriate organization for disaster prevention, rescue, relief and reconstruction are matters of urgency.

Annex III

LEGAL STATUS OF DISASTER RELIEF UNITS MADE
AVAILABLE THROUGH THE UNITED NATIONS

A. Status of unit in relation to the United Nations

1. Where a disaster relief unit is "made available through the United Nations" the legal status of the unit in relation to the United Nations could either be that of a subsidiary organ of the United Nations or that of an entity separate in legal status from the United Nations.

1. Subsidiary organ

2. If the disaster relief unit is itself established by the United Nations, the unit would be a subsidiary organ of the United Nations. A disaster relief unit of this kind would be similar in legal status to, for example, the United Nations Force in Cyprus (UNFICYP) which was established by the Secretary-General pursuant to a recommendation of the Security Council. As was recommended by the Security Council, the composition and size of UNFICYP was established by the Secretary-General in consultation with the Governments of Cyprus, Greece, Turkey and the United Kingdom of Great Britain and Northern Ireland; the Commander of UNFICYP was appointed by the Secretary-General and reports to the Secretary-General.

2. Entity separate in legal status

3. A disaster relief unit established by an authority other than the United Nations would not be a subsidiary organ of the United Nations but an entity separate in legal status from the United Nations. Where the United Nations is itself to be associated in the provision, administration or co-ordination of the relief services, however, a contractual or even a less formal relationship might obtain between the United Nations and the authority which established the disaster relief unit.

4. An example of a disaster relief unit of this kind was the Technical Cadre Unit of the Swedish Stand-by Force for United Nations Service which was established by the Government of Sweden and was made available recently through the United Nations for service in Peru under a Tripartite Agreement, dated 29 July 1970, between the United Nations and the Governments of Peru and Sweden. The Agreement recognized that the Unit was made available by Sweden at the request of Peru, made through the United Nations, and provided for substantial co-operation between the United Nations, the Government of Peru and the Government of Sweden. Under the Agreement the members of the Technical Cadre Unit were responsible for the performance of their functions solely to the Commander of the Unit, who was appointed by the Government of Sweden.

5. Where on the other hand, a unit, though made available in response to General Assembly resolution 2435 (XXIII),^{a/} is in fact provided to the receiving country without United Nations involvement, the United Nations would not need to be party to the arrangements with the receiving country. For example, as was noted in the Secretary-General's interim report, dated 12 May 1970, on assistance in cases of natural disasters (E/4853 and Corr.1, p. 32), the Government of Norway informed the Secretary-General in 1967, in response to the request contained in General Assembly resolution 2034 (XX),^{b/} that a Surgical Disaster Unit and a Field Hygiene Team had been established for the purpose of giving emergency assistance at the request

^{a/} The General Assembly in paragraph 5 of resolution 2435 (XXIII) appealed to States Members of the United Nations and members of the specialized agencies to consider offering, through the United Nations or otherwise, emergency assistance to meet natural disasters, including stand-by disaster relief units or the earmarking of similar units for service in foreign countries.

^{b/} The General Assembly in paragraph 2 of resolution 2034 (XX) requested Member States, when offering emergency assistance in cases of natural disaster, to inform the Secretary-General of the type of emergency assistance they are in a position to offer.

of a State Member of the United Nations. Both personnel and equipment were organized for transport by air and could be made operative at short notice. Following the 1970 disaster in Peru, a Norwegian unit served in Peru, and the United Nations was not party to the arrangements established with respect to such unit. As was also noted in the Secretary-General's interim report, there have been other national units which have served in relief work abroad under bilateral arrangements with receiving countries.

E. Use of United Nations flag

6. The United Nations Flag Code and Regulations regulate the use of the United Nations flag. Use of the United Nations flag by a disaster relief unit which is a subsidiary organ of the United Nations would be clearly permissible under article 4 of the United Nations Flag Code. The relevant provisions of article 4 paragraphs 1 (a) and 2, read as follows:

"4. (1) The flag shall be flown:

(a) From all buildings, offices and other property occupied by the United Nations,

...

(2) The flag shall be used by any unit acting on behalf of the United Nations such as any Committee or Commission or other entity established by the United Nations in such circumstances not covered in this Code as may become necessary in the interests of the United Nations.

..."

7. The use of the United Nations flag by a disaster relief unit which has a legal status separate from that of the United Nations would also be permissible under paragraph 2 of article 4, should the disaster relief unit be brought into such a relationship with the United Nations, for example, a contractual relationship, that the unit could be said to be "acting on behalf of the United Nations".

C. Agreement with receiving country

1. Parties to agreement

8. Where a disaster relief unit is made available through the United Nations an agreement with respect to the unit would need to be concluded with the receiving country. If the disaster relief unit is a subsidiary organ of the United Nations, the agreement would be entered into between the United Nations and the receiving country.

9. Where the disaster relief unit has a legal status separate from that of the United Nations, the question whether the United Nations should also be a party to the agreement with the receiving country would depend on the degree to which the United Nations would be associated in the relief services. As was noted above, an agreement was concluded between the United Nations, the Government of Peru and the Government of Sweden with respect to the Technical Cadre Unit of the Swedish Stand-by Force for United Nations Service which was made available through the United Nations for service in Peru.

2. Provisions of agreement pertaining to status of the unit

International status and purpose of unit

10. An agreement with a country receiving a disaster relief unit would need to include provisions recognizing the international status and purpose of the unit; the authority responsible for command of the unit; and the relationship which may exist between the unit and the United Nations.

11. The Agreement with Peru on the Swedish Technical Cadre Unit, for example, provided that the "Technical Cadre Unit of the Swedish Stand-by Force for United Nations Service" would "be made available through the intermediary of the United Nations for an initial period of up to six months, to aid in reconstruction of the areas devastated in Peru as a result of the earthquake of 31 May 1970", that the

members of the Unit would be responsible for the performance of their functions solely to the Commander of the Unit, who would submit reports on the operations of the Unit to the Secretary-General, through his designated representative, and as appropriate to the Government of Peru and the Government of Sweden, and that the United Nations would bear no operational responsibility in connexion with the Unit.

Use of United Nations flag and identification marks

12. As already mentioned, the use of the United Nations flag by a disaster relief unit which is a subsidiary organ of the United Nations, and use of the United Nations flag by a disaster relief unit which, though not a subsidiary organ of the United Nations, could be said to be "acting on behalf of the United Nations" is permissible.

13. The Agreement with Peru with respect to the Swedish Technical Cadre Unit, which was not a subsidiary organ of the United Nations, provided for the display of the United Nations flag by the unit and for the use by the unit of United Nations identification marks:

"Article 5. In recognition that it is acting on behalf of the United Nations, the Unit is authorized to fly the United Nations flag in accordance with the United Nations Flag Code and Regulations. The Unit may display the United Nations flag on its headquarters in Peru and otherwise as may be agreed by the Secretary-General's designated representative. In addition to the United Nations flag, the Unit may also display the flags of Sweden and of Peru. The Commander and members of the Unit may wear their national uniform. Suitable United Nations identification for the Commander and members of the Unit may be authorized by the Secretary-General's designated representative. The Commander and members of the Unit will conduct themselves at all times in a manner consistent with the purposes and principles of the United Nations and with their status under this agreement."

Relationships for co-ordination of functions

14. An agreement with a receiving country would also need to provide for the co-ordination of functions, first, as between the parties to the agreement; and secondly, as between the disaster relief unit and others engaged in the relief services.

15. The Agreement with Peru with respect to the Swedish Technical Cadre Unit provided for these matters as follows: Article 1 provided that the work of the Unit would be carried out together with other work being performed in accordance with decisions of competent United Nations organs and under the general plan of the Government of Peru. Article 2 provided that for the purposes of the agreement each of the parties would designate a representative authorized to act for it on all matters covered by the agreement; and that the assignments of the Unit would be determined by agreement between the representative of the Government of Peru and the representative of the Government of Sweden, with the assistance and advice of the representative of the Secretary-General. Article 3 provided for the submission of reports by the Commander of the Unit to the Secretary-General, through his designated representative, and as appropriate to the Government of Peru and the Government of Sweden. Article 7 provided that although the United Nations would bear no financial or operational responsibility in connexion with the Unit, the Secretary-General's designated representative might provide good offices to the Governments with respect to any matter arising in connexion with the agreement.

Privileges and immunities

16. The Convention on the Privileges and Immunities of the United Nations, of 13 February 1946, provides for the grant of privileges and immunities to the United Nations, to representatives of United Nations Member States, to officials of the United Nations, and to experts on missions for the United Nations. (The provisions pertaining to representatives of Member States are not of immediate relevance.)

17. Where the receiving country is party to the Convention, the Convention would be applicable in the case of a disaster relief unit as follows:

(a) The provisions of articles I, II and III of the Convention on the Privileges and Immunities of the United Nations would be applicable, automatically, to the disaster relief unit where the status of the unit is that of a subsidiary organ of the United Nations. The provisions would not apply to a unit which has a legal status separate from that of the United Nations.

Article I of the Convention concerns the juridical personality of the United Nations, and recognizes the capacity of the United Nations to contract; to acquire and dispose of property; and to institute legal proceedings.

/...

Article II provides for, among other matters, the immunity of the United Nations, its property and assets from legal process, except when immunity is expressly waived by the United Nations; the inviolability of the premises of the United Nations, and the immunity of its property and assets from search and any other form of interference; the immunity of the United Nations from currency controls; its immunity from all direct taxes; and its exemption from customs duties, prohibitions and restrictions with respect to articles imported or exported for official use. Article II also provides for the remission or return, whenever possible, of the amount of duty or tax forming part of the price to be paid on important purchases by the United Nations. Article III deals with the privileges and immunities of the United Nations with respect to communications facilities.

The provisions of article V and of sections 24 and 25 of article VII of the Convention would apply, automatically, irrespective of whether the disaster relief unit is a subsidiary organ of the United Nations, to officials of the United Nations assigned by the United Nations to work with the unit.

Article V of the Convention provides for, among other matters, the immunity of United Nations officials from legal process with respect to official acts: their exemption from taxation on salaries and emoluments paid by the United Nations; their immunity from immigration restrictions and alien registration; and their privileges with respect to exchange facilities, repatriation facilities in time of international crisis, and importation of furniture and effects. Article V provides for the waiver by the Secretary-General of the immunity of an official where the immunity would impede the course of justice and can be waived without prejudice to the interests of the United Nations: and requires that the United Nations co-operate with the authorities of Member States to facilitate the proper administration of justice.

Sections 24 and 25, article VII, provide for the issue by the United Nations to its officials of United Nations laissez-passer to be accepted as valid travel documents by the authorities of Member States, and for the grant to holders of United Nations laissez-passer of facilities for speedy travel.7

(c) The provisions of article VI of the Convention would apply, automatically, irrespective of whether the disaster relief unit is a subsidiary organ of the United Nations, to those persons serving with the unit who could be regarded as "experts on missions for the United Nations".

[Article VI of the Convention provides, among other matters, that experts (other than officials within the scope of Article of the Convention) on missions for the United Nations shall be accorded such privileges and immunities as are necessary for the independent exercise of their functions. The article provides, in particular, for their immunity from personal arrest or detention and from seizure of baggage; their immunity from legal process with respect to acts done in the course of the performance of their mission; inviolability for all papers and documents; facilities with respect to currency or exchange restrictions; and immunities and facilities with respect to personal baggage. Article VI also makes provision for waiver by the Secretary-General of the immunity of an expert where the immunity would impede the course of justice and can be waived without prejudice to the interests of the United Nations.]

(d) The provisions of section 26 of article VII would apply, automatically, irrespective of whether the disaster relief unit is a subsidiary organ of the United Nations, to members of the unit who, though not holders of United Nations laissez-passer, could be said to be travelling on the business of the United Nations and hold a certificate issued by the United Nations to that effect.

[Section 26 of article VII states that facilities similar to those specified in section 25 shall be accorded experts and other persons who, though not the holders of United Nations laissez-passer, have a certificate stating that they are travelling on the business of the United Nations. Section 25 provides for the grant of facilities for speedy travel to holders of United Nations laissez-passer.]

18. Where provisions of the Convention on the Privileges and Immunities of the United Nations do not apply (where, for instance, the receiving country is not party to the Convention or where, though it is party to the Convention, the disaster relief unit has a separate legal status from the United Nations and it cannot be said that the members of the unit are experts on missions for the United Nations), it would, nevertheless, be open to the receiving country to provide, for example, (by specific provision to that effect in the agreement to be concluded with respect

to the disaster relief unit) for the grant to the disaster relief unit and its members of privileges and immunities similar to those accorded in the Convention.

19. In the case of the Swedish Technical Cadre Unit (not a subsidiary organ of the United Nations) which served in Peru, the provisions of the Agreement with the Government of Peru (a party to the Convention on the Privileges and Immunities of the United Nations) provided for the grant of privileges and immunities to the Unit and its members. The Government agreed to assure to the Unit, its Commander and its members the conditions necessary to facilitate the performance of the functions of the Unit; to extend to the Unit the provisions of articles I, II and III of the Convention on the Privileges and Immunities of the United Nations; and to extend the provisions of article VI and section 26 of article VII of the Convention to the Commander and the members of the Unit.

3. Other provisions of agreement

20. An agreement with a country receiving a disaster relief unit would also need to provide, among other matters, for such questions as the particular area to which the unit is to be assigned; the particular duties to be assigned to the unit; and responsibility for costs.

21. The Agreement with the Government of Peru with respect to the Swedish Technical Cadre Unit left the question of assigned area and the question of duties to be determined by designated representatives of the Government of Peru and the Government of Sweden, assisted by the representative of the Secretary-General. As regards responsibility for costs, the Agreement provided that the Government of Sweden would bear all costs directly pertaining to the Unit, and that the Government of Peru would bear the cost of material and of local labour. The United Nations bore no financial responsibility.

D. Conclusions

22. Accordingly, the formulation of certain conclusions with respect to the status of disaster relief units made available through the United Nations would now appear possible, particularly in the light of the arrangements established for the provision of the Swedish Technical Cadre Unit for service in Peru. These conclusions may be summarized as follows:

/...

(a) A disaster relief unit made available through the United Nations would, depending on whether the unit is established by the United Nations or by an authority other than the United Nations, either be a subsidiary organ of the United Nations or have a legal status separate from that of the United Nations;

(b) The United Nations can co-operate, to a substantial degree, even in a case where a disaster relief unit has a legal status separate from that of the United Nations;

(c) The use of the United Nations flag by a disaster relief unit is permissible where the unit is a subsidiary organ of the United Nations; and also where the unit, though having a legal status separate from the United Nations, can in the circumstances of the case be said to be acting on behalf of the United Nations;

(d) An agreement needs to be concluded with the country receiving a disaster relief unit. Where the unit is a subsidiary organ of the United Nations, the agreement would be concluded between the United Nations and the Government of the receiving country. Where the unit has a legal status separate from that of the United Nations, the United Nations, if it is to be associated in the provision, administration or co-ordination of the relief services, may also be party to the agreement;

(e) The agreement needs to provide, among other matters, for the co-ordination of the work of the disaster relief unit with the work of other bodies engaged in the relief services; for the privileges, immunities and facilities to be accorded the disaster relief unit in the receiving country; and for the manner in which responsibility for costs is to be borne;

(f) As regards privileges and immunities, though provisions of the Convention on the Privileges and Immunities of the United Nations may not be applicable in a given case, it is open to the receiving country to agree to accord to the disaster relief unit and its members privileges and immunities similar to those provided for in the Convention.

23. The question of what might be done by the United Nations to facilitate the speedy conclusion of an agreement with a receiving country establishing the conditions under which a disaster relief unit would be made available is perhaps

an aspect to which the Economic and Social Council and the General Assembly may wish to give some consideration, when examining the role of the United Nations in the provision of disaster relief units through the United Nations.

24. While it is clear that such conditions are matters for negotiation and agreement between the parties concerned, it may be considered whether, for the purpose of facilitating and expediting the conclusion of disaster relief units agreements, it would not be initially desirable for certain guidelines to be established for the conclusion of agreements of this kind. The guidelines may, for example, enumerate the elements it would appear desirable to include in a disaster relief unit agreement, and perhaps also propose principles in the light of which parties may make provision for such matters in their agreement. It may be of assistance in this connexion for consideration to be given among other matters, to the provisions of the Agreement of 29 July 1970 between the United Nations, the Government of Peru and the Government of Sweden concerning the Swedish Technical Cadre Unit which served in Peru; as well as to other agreements of the United Nations under which services are rendered by international personnel within the territory of a State, such as the agreements concluded in connexion with United Nations programmes of technical assistance, assistance under the Special Fund sector of the United Nations Development Programme, assistance under the World Food Programme and in the field of peace-keeping.

Annex IV

ADMINISTRATIVE AND FINANCIAL IMPLICATIONS OF THE ESTABLISHMENT WITHIN
THE UNITED NATIONS SECRETARIAT OF A PERMANENT OFFICE RESPONSIBLE FOR
THE CO-ORDINATION OF ACTION RELATING TO NATURAL DISASTERS

Statement submitted by the Secretary-General in accordance with rule 34
of the rules of procedure of the Economic and Social Council

1. In accordance with General Assembly resolution 2717 (XXV) and, in particular, with paragraph 4 (c) of that resolution which invites the Secretary-General to include in his report his conclusions and recommendations on "the most appropriate means to strengthen further the capacity of the United Nations... including organizational arrangements", the establishment of an office within the United Nations Secretariat having the terms of reference described in the present report would, when fully staffed along the lines indicated in the report have financial implications of \$205,200 on an annual basis. The details of the estimates, which relate to an office in New York, supervised and directed by an existing senior official, are as follows:

Staff required:	\$
1 Director, 2 professional officers and 3 general service posts	139,400
Consultants	20,000
Travel of staff	20,000
Office space	15,700
Furniture and equipment (not recurrent)	4,400
Stationery and supplies	700
Communications:	
cables, pouches, postage and telephone	<u>5,000</u>
	<u>205,200</u>

2. Should the Economic and Social Council approve the establishment of the said office, the Secretary-General would plan to implement the proposal progressively over the period 1972-1973 and the annual appropriations required would be

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requested in the normal process of formulating the United Nations budget to be submitted to the General Assembly for approval. The Secretary-General would also welcome voluntary contributions from public and private sources.

3. Moreover, the Administrative Management Service would take into account the Council's decision on the matter, when making its recommendations concerning the appropriate staffing levels of the Offices of the Secretary-General.