

2nd. Edition

Disaster Preparedness



Disaster Management Training Programme

Disaster Preparedness

2nd Edition

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DHA

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United Nations reorganization and the Disaster Management Training Programme

Since this module was written, there have been reorganizations within the United Nations system. This section describes these organizational changes and explains the expanded role of the United Nations in Disaster Management.

In December 1991 the General Assembly of the United Nations adopted resolution 46/182* establishing the **Department of Humanitarian Affairs (DHA)** in order to strengthen **“the coordination of humanitarian emergency assistance of the United Nations”** and ensure **“better preparation for, as well as rapid and well-coordinated response to complex humanitarian emergencies as well as sudden and natural disasters.”** The Department incorporates the former UNDRO as well as former UN emergency units for Africa, Iraq and South-East Asia. The Secretariat for the International Decade for Natural Disaster Reduction (IDNDR) also forms part of the Department.

With regard to complex emergencies, DHA often operates in the grey zone where security, political and humanitarian concerns converge. Policy planning and policy coordination are performed in New York, where DHA works closely with the deliberative organs of the United Nations and with the political, financial and economic departments of the Secretariat.

The Geneva Office (DHA-Geneva) concentrates its activities on the provision of emergency operational support to governments and UN operational entities. It is also responsible for the coordination of international relief activities related to disaster mitigation. It continues to handle the UN system’s response to all natural disasters.

An Inter-Agency Standing Committee (IASC) chaired by the Under-Secretary-General for Humanitarian Affairs has been established pursuant to General Assembly resolution 46/182. It associates non-governmental organizations, UN organizations, as well as the International Committee of the Red Cross (ICRC) and the International Federation of Red Cross and Red Crescent Societies (IFRC). The Executive heads of these agencies meet regularly to discuss issues relating to humanitarian emergencies. An inter-agency secretariat for the IASC has also been established within DHA.

Several Special Emergency Programmes (SEP) have been organized within the Department, including the Special Emergency Programme for the Horn of Africa (SEPHA), the Drought Emergency in Southern Africa Programme (DESA), the Special Emergency Programme for the New Independent States (SEP-NIS), as well as the United Nations Office for the Coordination of Humanitarian Assistance to Afghanistan (UNOCHA).

DHA promotes and participates in the establishment of rapid emergency response systems which include networks of operators of relief resources, such as the International Search and Rescue Advisory Group (INSARAG). Special attention is given to activities undertaken to reduce the negative impact of sudden disasters within the context of the International Decade for Natural Disaster Reduction (IDNDR).

The Disaster Management Training Programme (DMTP), which was launched in the early 1990s, is jointly managed by DHA and UNDP, with support from the Disaster Management Center of the University of Wisconsin, on behalf of an Inter-Agency Task Force. It provides a framework within which countries and institutions (international, regional and national) acquire the means to increase their capacity-building in emergency management in a development context.

*Copy is included in The Overview of Disaster Management Module.

■ INTRODUCTION

Purpose

This training module, *Disaster Preparedness*, is designed to introduce one aspect of disaster management to an audience of U.N. organization professionals who form disaster management teams, as well as to government counterpart agencies, non-governmental organizations and donors. This module is designed to increase the audience's awareness of the nature and management of disasters, leading to better performance in disaster preparedness and response.

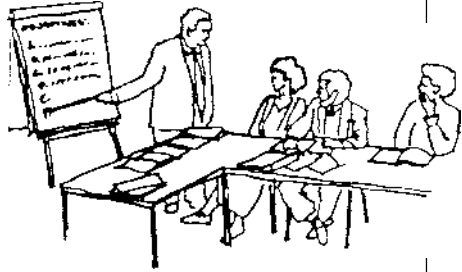
The content has been written by experts in the field of disaster management and in general follows UNDP/UNDRO *Disaster Management Manuel* and its principles, procedures, and terminology. However, terminology in this field is not standardized and authors from different institutions may use the same terms in slightly different ways.

Scope

The purpose of this module is to introduce you to basic concepts related to disaster preparedness. The first part of the module sets forth various categories to consider in planning for disaster preparedness: from assessing vulnerability to actually rehearsing the plan.

In the second part of the module, you will learn about international collaboration for preparedness with a focus on the U.N. system. You should come away with a heightened awareness of the roles and limitations of international agencies in coordinating disaster preparedness efforts.

The implementation of disaster preparedness plans is discussed in Part Three of this module: from promoting these plans to considering advice based on common pitfalls related to implementation.



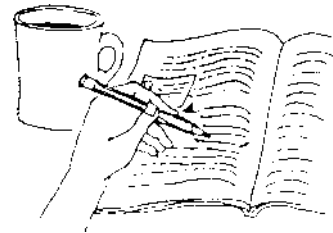
Training methods

This module is intended for two audiences, the self-study learner and the participant in a training workshop. The following training methods are planned for use in workshop and are simulated in the accompanying “training guide”. For the self-study learner the text is as close to a tutor as can be managed in print.

Workshop training methods include:

- group discussions
- simulations/role plays
- supplementary handouts
- videos
- review sessions
- self-assessment exercises

The self-study learner is invited to use this text as a workbook. In addition to note-taking in the margins, you will be given the opportunity to stop and examine your learning along the way through questions included in the text. Write down your answers to these questions before proceeding to ensure that you have captured key points in the text.





OVERVIEW

This module is designed to help you:

- *learn a three-part definition of disaster preparedness*
- *identify nine categories of planning activities for disaster preparedness*
- *compare three UN roles in collaborating for preparedness*
- *understand four ways to avoid problems in implementing disaster preparedness plans*
- *consider fourteen areas of basic information to assess for preparedness*

Overview of the concept

Q. *How would you define disaster preparedness?*

A. _____



Disaster preparedness involves forecasting and taking precautionary measures prior to an imminent threat when advance warnings are possible. Preparedness planning improves the response to the effects of a disaster by organizing the delivery of timely and effective rescue, relief and assistance.

Preparedness involves the development and regular testing of warning systems (linked to forecasting systems) and plans for evacuation or other measures to be taken during a disaster alert period to minimize potential loss of life and physical damage. It also involves the education and training of officials and the population at risk, the training of intervention teams, and the establishment of policies, standards, organizational arrangements and operational plans to be applied following a disaster. Effective plans also consider securing resources, possibly including stockpiling supplies and earmarking funds. These plans must be supported by enabling legislation.

Disaster Preparedness

HAZARD

A rare or extreme event in the natural or human-made environment that adversely affects human life, property or activity to the extent of causing a disaster.

DISASTER

A serious disruption of the functions of a society, causing widespread human, material, or environmental losses which exceed the ability of the affected society to cope using only its own resources.

ASSISTANCE

The provision on a humanitarian basis of material aid and services necessary to enable people to meet their basic needs for shelter, clothing, water and food. Assistance is available for extended periods.

RELIEF

The provision on a humanitarian basis of material aid and emergency medical care necessary to save human lives. Relief supplies and services are provided in the period immediately following a sudden disaster.

ANSWER (from page 11)

Compare your answer with paragraph 1 under "Working Definition."

Working definition

Disaster preparedness minimizes the adverse effects of a hazard through effective precautionary actions, rehabilitation and recovery to ensure the timely, appropriate and effective organization and delivery of relief and assistance following a disaster.

This is a broad definition of disaster preparedness. Let's analyze some of the points made in this definition.

"minimizes the adverse effects of a hazard-"

Long-term risk reduction measures are intended to minimize the adverse effects of a hazard by eliminating the vulnerabilities which hazards would otherwise expose. These measures directly reduce the potential impact of a hazard before it strikes. Disaster preparedness assumes that certain groups of people or property will nevertheless remain vulnerable, and that preparedness will have to address the consequences of a disaster's impact.

"through effective precautionary actions-"

This module explains the components of effective precautionary actions and how develop them. Too often the end product of disaster preparedness is seen as a static plan to be devised and then field until it is needed. Disaster preparedness must be seen as an active, on-going process. Preparedness plans are dynamic ventures which need to be reviewed, modified, updated and tested on a regular basis.

Some analysts distinguish between "active" and "passive" disaster preparedness measures. Passive aspects of disaster preparedness include the preparation of disaster manuals, stockpiling of relief goods and the development of computer lists of resources and personnel. "Active" disaster preparedness would include developing comprehensive response plans, monitoring hazard threats, training emergency personnel, and training members of the communities at risk.

"to ensure timely appropriate and effective delivery of relief-"

Disaster management involves the response to or anticipation of a hazardous event. Disaster mitigation includes both disaster preparedness and prevention. One of the most difficult aspects of disaster management is that of timing. Timing is also critical to disaster preparedness. Speed and timeliness are often treated synonymously, causing serious problems in the relationship between relief inputs and their effects. There are certain basic needs in some types of disasters, such as shelter and clothing, that may be required immediately. In terms of alleviating immediate distress, speed will be essential. However, there are other forms of relief that, under certain circumstances, may be disruptive unless delayed. There is the obvious example of food. Rushing in excessive amounts of food aid before a clear assessment of local market conditions and agricultural prospects are known can create dependency and undermine local economies. Timeliness, not speed, should be the preparedness criterion.

Appropriate assistance requires careful scrutiny. The list of inappropriate relief items that find their way to disaster affected communities is all too long. The issue goes beyond the standard stories of canned ham sent to non-pork eating communities and spiked-heeled women's shoes sent to flooded regions.

There is an important and natural link between disaster preparedness, recovery and rehabilitation. You must consider whether the provision of appropriate relief and assistance is designed merely to ensure the immediate survival of affected communities or to pave the way for recovery. Not only is the question essential to determine the boundaries of disaster preparedness itself, but it becomes a practical determinant in the type of measures and resources you commit to the implementation of a disaster preparedness plan.

You ignore the linkage between disaster preparedness and recovery and rehabilitation at your peril, or at the peril of the affected community. Effective disaster preparedness planning should incorporate readiness for self-reliant action that will be needed for communities not only to survive but to recover.

The effective organization and delivery of the disaster response suggest obvious criteria for disaster preparedness. Systematic planning, well executed distribution of relief, clear cut roles and responsibilities are all subjects that will be treated in this module. Now let's put the concepts of "effective" and "delivery" into context. Inevitably, disaster situations create conditions of chaos. The best laid plans can reduce, but not eliminate, that chaos. Effectiveness is relative. Preparedness plans should seek to anticipate the sources of chaos and should tell us what to do when plans go awry. The criterion of effectiveness becomes particularly important in the context of distribution. The key here is that effectiveness is measured in terms of the ability to deliver needed relief to those in need. Often in emergency situations, food and non-food relief arrives at the scene of a disaster without a pre-established structure to ensure that those in greatest need are the immediate beneficiaries. The most important test of effectiveness is that those in need receive adequate relief and assistance.

Effective disaster preparedness planning should incorporate the types of relief and assistance inputs that will be needed for communities not only to survive but to recover.

PART 1

PLANNING FOR DISASTER PREPAREDNESS

In this part of the module you will learn:

- *three objectives of vulnerability assessments*
- *the typical structure of a disaster plan*
- *how to recognize:*
 - *four obvious planning points*
 - *four less obvious planning points*
 - *nine categories of preparedness planning: vulnerability assessment, the plan, the institutional framework, information systems, the resource base, warning systems, response mechanisms, education/training, and rehearsals*

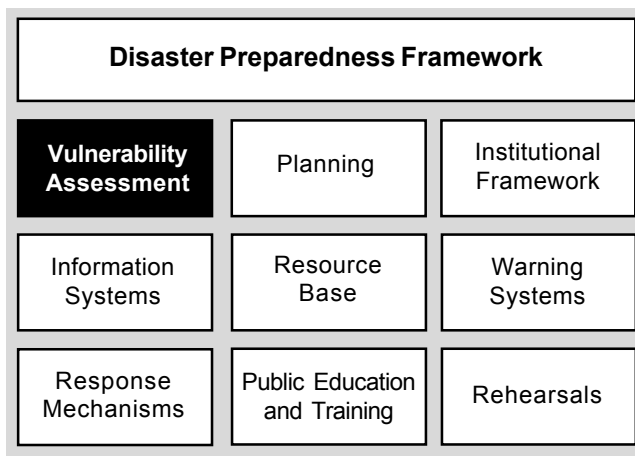
Part One should give you an understanding of the major components involved in disaster preparedness and provide a basis upon which a national disaster preparedness strategy can be developed. The disaster preparedness framework illustrated on the following pages outlines activities that are essential to the development of a preparedness strategy. Although an implementation sequence for these activities is suggested, some activities may be undertaken simultaneously, or even in reverse order.

Q. *In your country, which activities have already been undertaken to promote disaster preparedness?*

A. _____



Vulnerability assessment



In most instances, you can identify particular geographical areas or communities that are predictably under threat from a hazard. These may include traditionally drought-prone areas, or communities living near volcanos or in flood-prone areas. They could be squatter settlements in which housing structures are known to be vulnerable to hurricanes, or communities unprotected from industrial waste. However, vulnerability need not be tied to particular geographic locations or communities. Displaced people, forced to flee from conflict or collapsing economic conditions, represent a community of sorts that can fall within the purview of vulnerability assessments. Vulnerability assessments are valuable tools for establishing an essential disaster management plan.

Vulnerability analysis is a continuing, dynamic process of people and organizations assessing the hazards and risks they face and determining what they wish to do about them, if anything. Vulnerability assessment also includes a means of structured data collection geared towards understanding the levels of potential threats, needs and immediately available resources. Assessment includes two general categories of information. The first is relatively static infrastructure information that provides bases for determining the extent of development, types of physical advantages and disadvantages faced by communities residing in an area, and a “map” of available structures (such as roads and hospitals) that might be useful in times of emergencies. The other category includes relatively dynamic socioeconomic data indicating causes and levels of vulnerability, demographic shifts and types of economic activity.

There is nothing mysterious about the concept of vulnerability assessments.¹ Their initial objective is to establish a data base that focuses upon the likely effects of potential hazards, relief needs and available resources. Vulnerability assessments should be linked with development interventions. When communities are determined to be vulnerable, development assistance may obviate the need for emergency assistance.

ANSWER (from page 15)

Answers can relate to any of the nine categories set forth in the Disaster Preparedness Framework.

¹ See also the Disaster Management Training Programme module, *Vulnerability and Risk Assessment*.

There are three main reasons why assessing vulnerability is critical for disaster preparedness. First, accurate vulnerability assessments serve as a means to inform decision-makers about the utility of national and local level approaches to disaster preparedness.

Second, decision-makers are usually aware of disaster propensities within their own countries. However, until the dimensions of the disaster threat and levels of preparedness or unpreparedness are fully appreciated, there may not be an effective starting point upon which to construct an overall plan.

Third, vulnerability assessments should serve as the basis for a more continuous “habit” of monitoring trends in physical, socioeconomic and infrastructure conditions of disaster-prone countries. In that sense, the initial effort of developing a data base through vulnerability assessments should become the basis for maintaining and updating an essential informational tool for development planning purposes.

On a technical level, vulnerability assessments serve as the starting point for determining the types of plans that should be developed as part of a national disaster preparedness strategy. For example, it is useful to know that people living on the deltaic coastline of Bangladesh are vulnerable to tropical storms. However, such information is of little use unless you also know the seasonal migration patterns of these people, whether or not those who till the land normally bring their families to the delta, and the number of two-story buildings in the area.

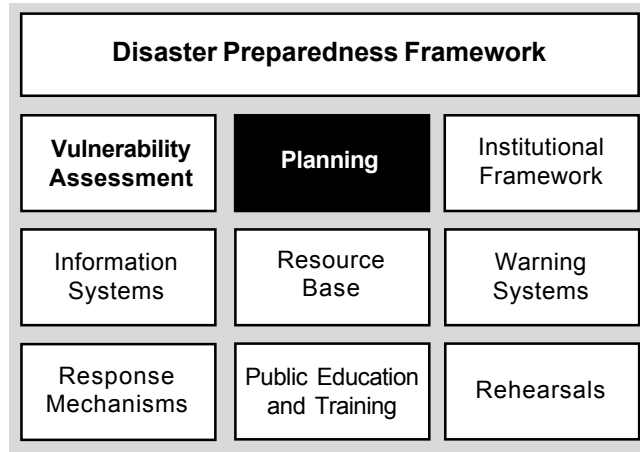
Vulnerability assessments should serve as the basis for a more continuous “habit” of monitoring trends in physical, socioeconomic and infrastructure conditions of disaster-prone countries.

Q. *Why should vulnerability assessments serve as the basis for a more continuous “habit” of monitoring trends in physical, socioeconomic and infrastructure conditions of disaster-prone counties?*

A. _____



Planning



Planning is the theme of the whole disaster preparedness exercise. One objective is to have agreed-upon, implementable plans in place, for which commitment and resources are relatively assured. Planning for readiness includes working out agreements between people or agencies as to who will provide services in an emergency to ensure an effective, coordinated response. These agreements might take various forms: memos of understanding, mutual aid agreements, or individual agency and master plans. The ultimate objective is not to write a plan but to stimulate on-going interactions between parties which may result in written, usable agreements. The written plan is a product, but not the main goal, of the planning process. There are four obvious points to be considered in any planning effort.

- A plan must:**
- have a clearly stated objective or set of objectives
 - reflect a systematic sequence of activities in a logical and clear manner
 - assign specific tasks and responsibilities
 - integrate its activities, tasks and responsibilities to enable the overall objective or set of objectives to be achieved

Four other aspects of planning should also be considered.

Clarity

Is this a “national disaster preparedness strategy” or a “contingency plan?” National disaster preparedness strategies include broad exercises which review the structure of all relevant institutions and their response capacities. This review includes central and local levels of government in an attempt to prepare for disasters in the context of the “disaster continuum.” (See Figure 1). It incorporates disaster preparedness within all disaster phases as well as within development programs. Such strategies normally include disaster mitigation, preparedness, recovery and rehabilitation.

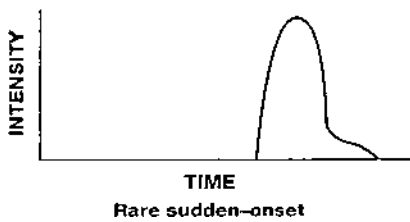
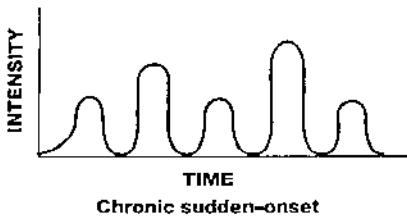
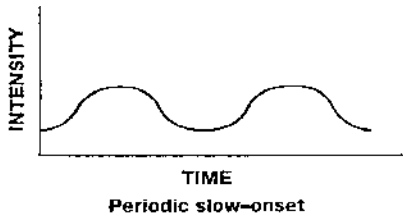
ANSWER (from page 17)
 Because information-gathering for disaster preparedness is a dynamic, on-going process.

Typical Structure of a Disaster Plan

Introduction.....	Legislative Authority Related Documents
The Aim, Definitions and abbreviations, The country (region, state).....	Topography Climate Demography Industry Government Organization
The threat	History Natural events (by type) Industrial accidents (by type)
Command and coordination	Powers and responsibilities at each level Command authorities and posts Description and role of Emergency Service
Planning groups	Arrangements for sectoral planning (such as Medical, Transport, and Communications)
External assistance	Arrangements and authority for requesting assistance from outside the planning area
Emergency operations centers Activation of organizations	Warning Systems Receipt and Dissemination of Warnings
Operational information Counter disaster organizations	Government Departments Defense Ministry Local Government Voluntary Organizations Arrangements for Liaison
Administration, Financial procedures, Supply	Emergency Purchasing Procedures Powers for Requisitioning
Public information	Announcements (requiring action) Information releases Emergency Broadcasting Multi-language broadcasts
Sub-plans	Communications, Police, Fire Services, Medical, Rescue, Welfare, Housing, Public Works, Transport, Power, Registration and Tracing Service

FIGURE 1
Typical structure of a disaster plan

Disaster Preparedness



Disaster contingency plans normally focus on means to address particular hazards. This is not to say that a good contingency plan ignores the need for mitigation and recovery measures, but it usually is not concerned with the entire disaster continuum, such as rehabilitation and development linkages. The main focus is on ways to address a particular hazard (such as a flood), within a fairly finite period, such as from early warning and response to immediate recovery phases. An effective national strategy will usually generate various contingency plans to meet specific disaster conditions.

Disasters strike in different ways and at different times. For example, certain countries have to face persistent, slow-onset disasters that occur almost on an annual basis during a three to five year cycle, affecting substantial portions of a society, such as drought-related famines in the Horn of Africa. Other countries face chronic sudden-onset threats. For example, floods in Bangladesh may normally affect a predictable part of the population in a geographically well-defined area. There are other nations, including Mexico, which may suffer severely from natural disasters which are relatively rare in occurrence, spread out over much longer intervals.

The answer to what types of plans or strategies are needed obviously depends on these and other variables. To what extent will a government of a disaster-prone country wish to commit national resources or external aid to this extensive an undertaking? From a structural and institutional point of view, would it be better to introduce a disaster preparedness plan on an incremental basis? For example, the plan might deal with one type of prevalent problem such as drought, or with all types of emergencies in a particularly vulnerable area.

Q. Explain the difference between a disaster preparedness plan and a strategy.

A. _____



Participation in the process

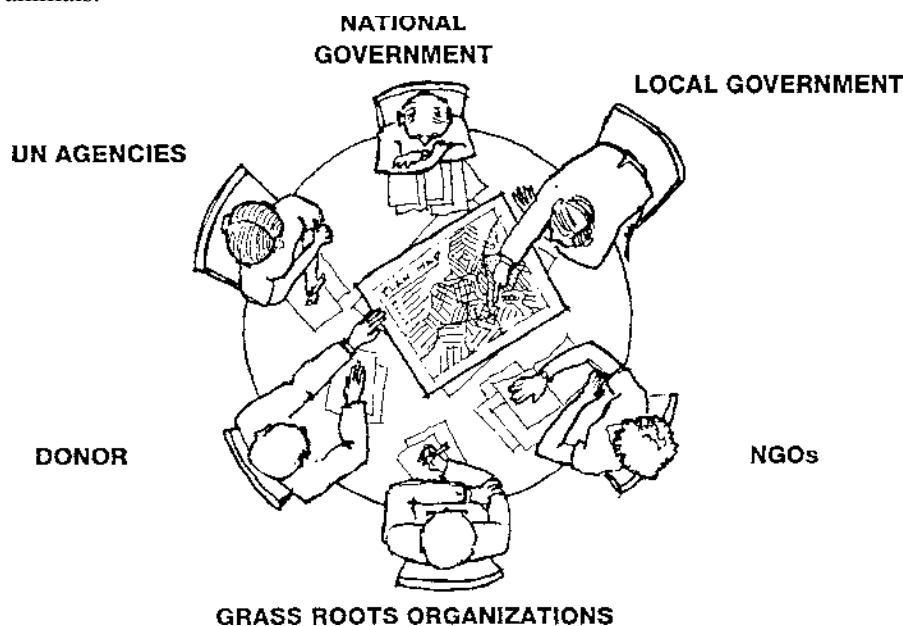
Of course, you can assume that the plan is designed for those most vulnerable to hazards. Determining who the plan is for reveals two standard planning dilemmas. The first involves determining who should be incorporated into the planning process. Experts often insist that local people and grass-roots organizations should participate in the planning process. This advice is justifiable for anyone who has seen the effectiveness of local coping mechanisms in urban or rural communities. However, how best to do this often requires considerable institutional dexterity. Local participation can not only present a considerable logistical problem, but government officials may not be receptive to the input.

The second point is the extent of centralization or decentralization, not only in the planning process but in the plan itself. For example, to what extent will regional or local institutions be allowed to declare an emergency or be allowed to release essential food or non-food items from prepositioned stores? What institutional relationships will exist between local, regional and central authorities? Who will undertake assessments, who will determine needs, and who will “own” the information?

The planners

In the enthusiasm and commitment to develop a plan, international experts and institutions are frequently tempted to lead the planning process. This is a fundamental error. If this is done, it will result in a mound of paper that benefits few. The complexities for government of introducing such a plan might be considerable. Progress might be commensurately slow. The best leadership role for international experts is that of gently pushing the process from the back ranks.

Planning might best be seen as the coordination of the intentions and plans of each collaborating party. Planning is not simply the work of “experts.” Rather, it includes such aspects as challenging shoe factory managers to decide how to protect and respond to threats to their employees and facilities; or asking farmers how they intend to protect their seedlings or animals.



Disaster Preparedness

DISASTER FOCAL POINT

In all UNDP field offices in disaster-prone countries, a senior national officer is designated this title for all disaster-related matters, including mitigation, response and international UN/UNDP preparedness.

However, to identify central planners, define which ministries and agencies in the government might be directly or even indirectly involved in some aspect of the proposed plan. Do not assume that if a government structure has a designated disaster focal point, the field will be adequately covered by a representative from that focal point alone. Instead, cast a wide gaze over all government institutions that might feel left out if they were not represented. Suggest to the government authority responsible for developing the plan that full representation would ultimately derive greater commitment and more durable results.

National as well as international non-governmental organizations (NGOs) which have a long-term commitment in vulnerable areas should be included in the process. Governments may not want NGOs directly involved in the planning process, but should be urged to link them into the overall objectives of the proposed plan. Similarly, bilateral donors should be kept informed about the planning process. Governments may not want them to play a direct role in the planning process; nor might the bilateral donors wish to become directly involved in the process. However, for any financial support which the eventual plan might require for implementation, a well-informed bilateral donor community can be a distinct advantage. Including UN staff in the planning process may also lead to successfully utilizing their agencies' resources.

With all the potential participants that might become embroiled in the planning process, you might wonder if the planning process can ever be sustained and controlled. It can, if you think in terms of the variety of mechanisms in which participation can take place. For example, a national conference can set the overall tone for a wide range of ministries and relevant national and international institutions. A series of work groups asked to design specific components of the plan also distributes the load and may allow for greater participation. Workshops can bring together the various "sub-groups" which inevitably will work under the guidance of a core steering group that can facilitate overall activities.

Q. *In your country, which entities should be involved in the planning process?*

A. _____

ANSWER (from page 20)
Plans focus on the means to address particular disaster threats, while strategies include broad exercises which review the structure of relevant institutions and their response capacities.

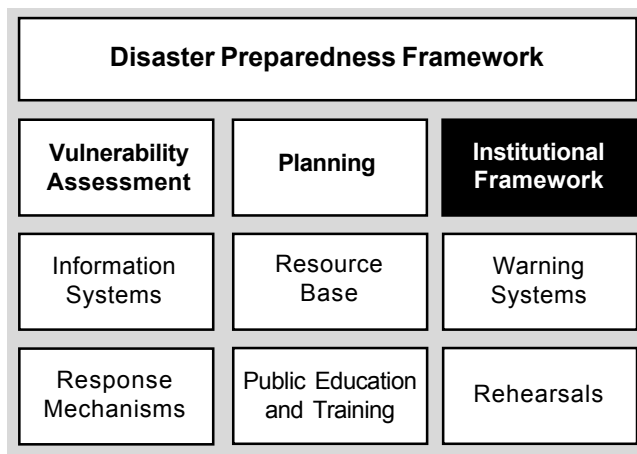


Status of the plan

A variety of indicators will suggest if the plan is intended to be taken seriously. An obvious indication will be the level of commitment by participants to the planning process itself. An equally evident indicator is if the funds for implementing the plan are adequate. A clear sign of commitment on the part of government to the plan will be the enabling legislation that the plan may receive. A disaster preparedness plan has to be underwritten by the laws of the nation. Unless roles and responsibilities of ministries and individuals are reinforced by legal sanctions, implementation will be jeopardized.

With these various points in mind, you should now focus upon the contents of a disaster preparedness plan. Whether that plan is a contingency plan focusing on specific types of emergencies or on specific geographic areas, or a national disaster preparedness strategy, there are certain features common to all such endeavors. Generally speaking, all planning exercises will have to address various points which will eventually be incorporated into a planning document.

Institutional structure

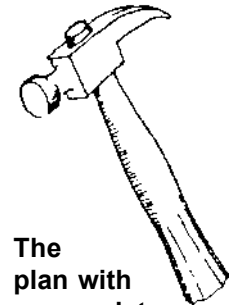


A coordinated disaster preparedness and response system is an essential condition of any disaster preparedness plan. There is no standard way of ensuring effective coordination. Each design will depend upon the traditions and governmental structure of the country under review. However, a plan will rapidly deteriorate unless there is “horizontal coordination” at central government and sub-national levels among ministries and specialized agencies and “vertical coordination” between central and local authorities. Avoid creating new organizations for disaster preparedness. Instead, work within established structures and systems. The emphasis must be upon strengthening existing institutions rather than devising additional layers of bureaucracy.

Disaster responses generally need the sanction of senior levels of government. For most disaster plans in the developing world, the approval of a president, prime minister or at least a deputy prime minister becomes the trigger mechanism for implementing a response. Consider the relationship between the senior level of government, ministerial levels and the functional disaster preparedness focal point.



The plan



The plan with appropriate funding and legislation

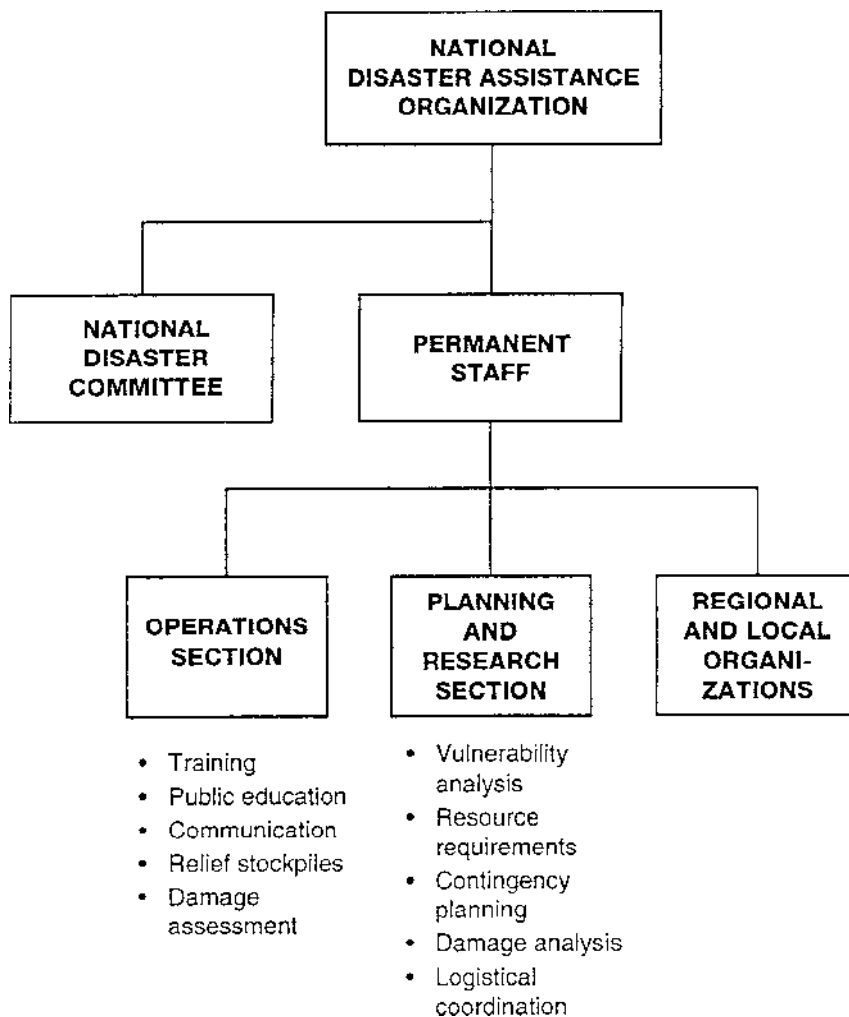
Work within established structures and systems.

An effective disaster preparedness plan will reflect an inter-ministerial response to disaster warnings and occurrences. These inter-ministerial committees, such as exist in India, should not be below the level of Permanent Secretary. This sort of committee will include a representative from the designated disaster preparedness focal point, and will keep appropriate senior government officials apprised on broad issues concerning preparedness and relief implementation.

A focal point should be designated to ensure effective disaster preparedness and to act as a coordination mechanism for disaster response. This focal point can be attached to or become a specialized agency, such as a Relief and Rehabilitation Commission. A focal point can also be developed within a ministry regarded as essential for certain types of disasters. For example, a Ministry of Agriculture might house the focal point if the nation's principal concern involves droughts which affect agricultural production. Finally, a focal point might be attached to the office of a senior level of government, as occurs in the Prime Minister's office in Jamaica. The need for a strong focal point is essential.

FIGURE 2²

National disaster assistance organization: detailed plan of organization and functions



ANSWER (from page 22)

Answer might include specific references to national, regional or local government entities, UN agencies, grassroot organizations, NGOs and donors.

2 Office of the United Nations Disaster Relief Coordinator, *Disaster Prevention and Mitigation*, Volume 11, Preparedness Aspects, United Nations, New York, 1984, p.19.

A variety of institutional options related to regional and community structures also exist. In the Ethiopian National Disaster Prevention and Preparedness Strategy, the government has decided to have parallel systems at regional and local levels. Representatives from relevant central government ministries are located at regional and local levels to work hand in hand with committees comprised of representatives from local peasant associations, as well as local and regional officials. In China and India, however, regional and state governments respectively determine most of the functional activities needed to develop preparedness activities and to implement plans.

Within these various institutions, who does what to implement various aspects of the disaster preparedness plan? Defining roles and responsibilities is one of the principal purposes of the plan. There is no standard method of delegation that will fit the requirements of all countries. There are, however, three points to keep in mind.

Responsibilities should reflect established expertise

It is of little use to give authority to implement an emergency food or cash-for-work program to a body that has little knowledge about the substance of such a program. Therefore, if one sort of measure to assist farmers to survive after the onset of a severe drought is to expand public works construction, then the responsibility for implementing such expanded projects should be with the relevant ministry.

Roles and responsibilities have to be clearly defined

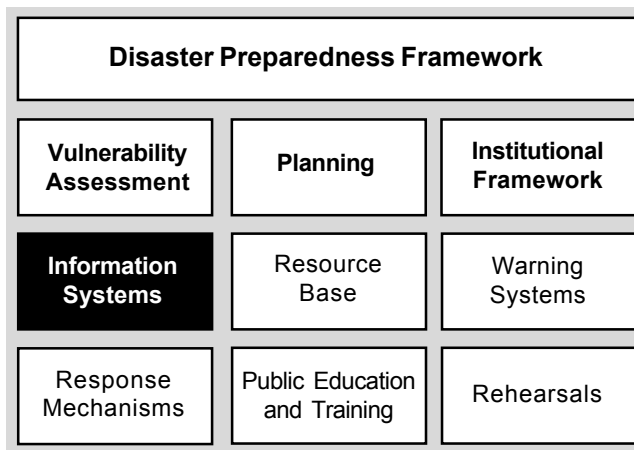
Imprecision breeds confusion. During the planning process, you inevitably will be tempted to make compromises about who should be doing what in order to move the process along. While convenient in the short-term, too many compromises early on may make the plan unworkable in the longer term.

Roles and responsibilities have to be appropriate

Effective planners avoid imposing roles and responsibilities upon individuals or institutions that will not be capable of implementing them in the foreseeable future. Nor does it make sense to assign roles and responsibilities without regard to the political and social conditions of the country or relevant regions within the country. This is especially important regarding the functions of local officials and local institutions. Botswana's successful preparedness is due in part to the way it uses local tribal leaders to elicit information about needs instead of relying on a central government official who may be less familiar with particular areas and local relief requirements. Assessing vulnerability builds a framework for on-going information updates about the infrastructure and socioeconomic conditions of disaster-prone areas and vulnerable people. At a very early stage in the planning process, you should decide on who will be responsible for providing updates of vulnerability profiles and on the frequency of such exercises.

***Imprecision
breeds
confusion.***

Information systems



Early warning systems are normally comprised of various elements. They can stem in part from information provided by meteorological offices, by a Ministry of Health (for example, nutritional surveys), or by a Ministry of Agriculture (for example, crop forecasts). One major criterion for an effective plan is an established system to ensure the coordination of all these different inputs. An interministerial information committee can serve this purpose. This sort of committee has to have clear-cut guidelines, reporting formats and mechanisms as well as established reporting procedures. It is essential to link the disaster preparedness focal point to this committee. Perhaps the focal point might serve as the chair organization for this interministerial information committee.

An added complication involves the combination of this information with grass-roots information, the “early warning” information obtained from those most directly threatened, which is highly relevant and often ignored. Ensuring that appropriate information systems are in readiness includes stimulating information exchange systems within each agency in the emergency environment, between organizations and between the organizations and the public.

The most appropriate means of gathering and disseminating early warning information must be carefully assessed and well defined within the disaster preparedness plan. It is imperative that early warning messages be understood by the people for whom they are issued.

Vulnerability assessment updates and the coordinated approach to early warning should encompass all the standard features required of any monitoring system. This includes determining changes in patterns of disaster threats, numbers of vulnerable people, and preparations for response. Monitoring must include an overall disaster preparedness assessment process in which essential physical aspects of the plan are reviewed system-wide (for example, available transport fleets and warehousing facilities) to ensure that when disaster strikes, all that the plan anticipates is in place. Monitoring must also include an assessment process after a disaster strikes. This is meant to ensure that the implementation of the plan is efficient, and that appropriate and timely relief is being distributed to targeted beneficiaries. (See Figure 3).

Specialized studies, such as transport capacity studies, will enhance the type of information and issues that should be built into early warning systems, vulnerability assessments and evaluations of resources required to implement the disaster preparedness plan.

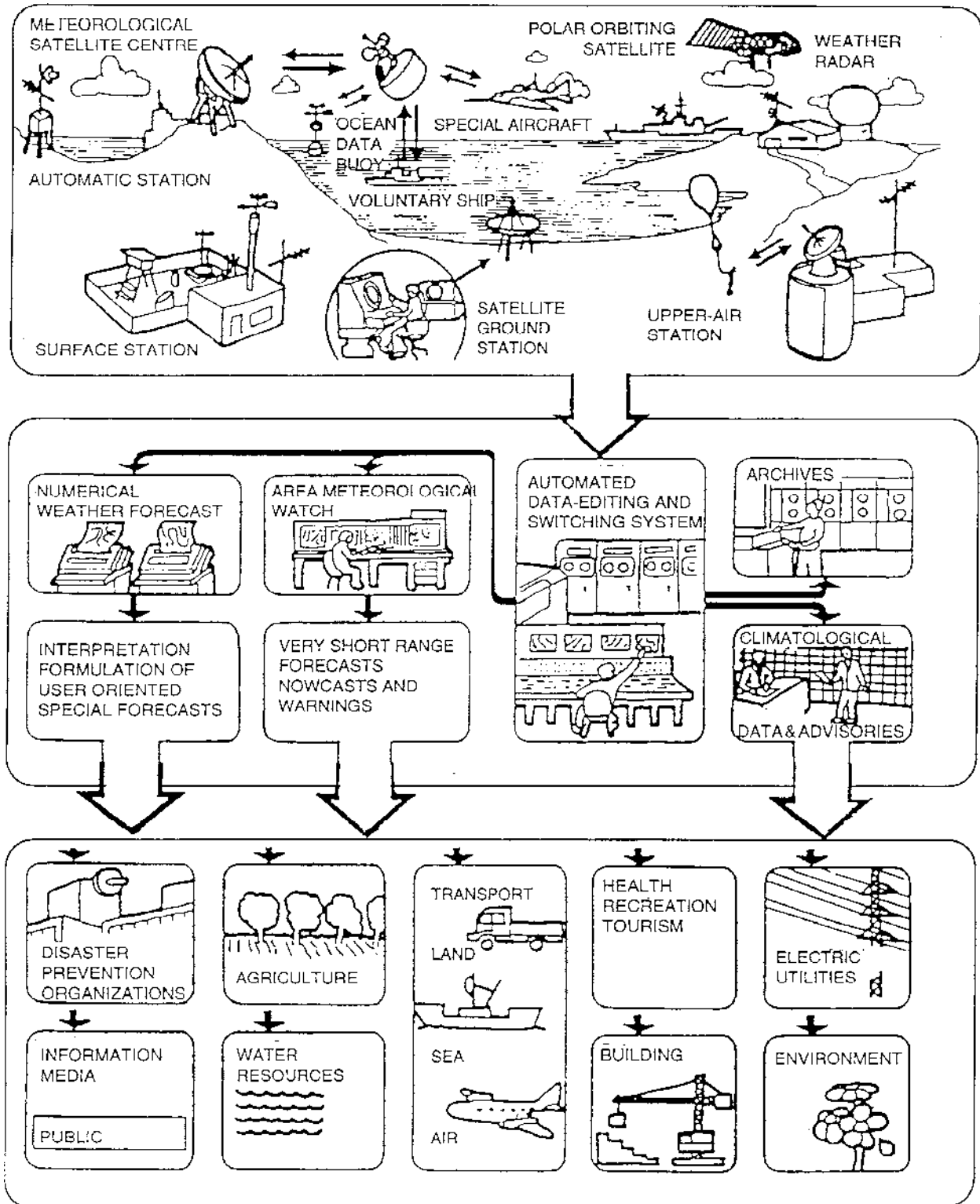
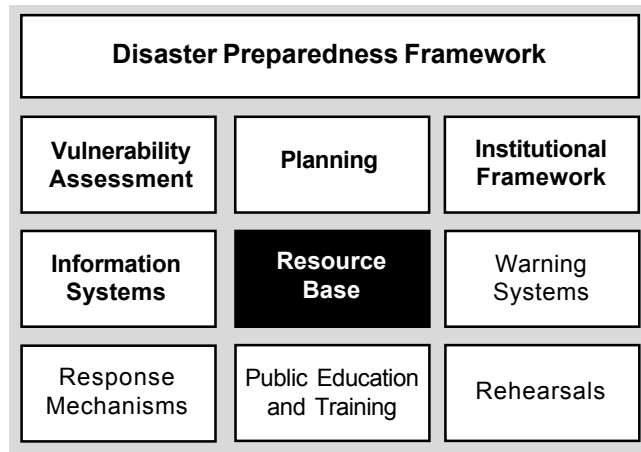


FIGURE 3
World Weather Watch

The operation of a national Meteorological Service: observations and data collection (top), data processing and preparation of forecasts, warnings and climatological advisories (center), dissemination of forecasts and other specialized information to users (bottom).

Resource base



The requirements to meet disaster needs will depend upon the types of disasters the plan anticipates. Such needs should be made explicit, and should cover all aspects of disaster relief and recovery implementation. Specific arrangements should be established whereby each party to written agreements can secure goods and services as required. Critical issues include special internal arrangements for the acquisition and dispersment of funds; policies and agreements for the use of other’s equipment and services; and emergency funding strategies.

In assessing the resources required for a disaster preparedness plan, the following elements should be considered.

Disaster relief funding

It is important to establish an emergency contingency fund. There is often a need for items that cannot be easily stockpiled, such as medicines, or items that were not anticipated, such as alternative fuels. A special reserve fund is worth considering in your preparedness plan.

Insurance is another form of creating reserves against potential future disasters. The following box illustrates one application of insurance.

Disaster preparedness funding

Solicit funds to pursue the activities of the planning process, including special studies, public awareness and training. Also seek funds to develop major inputs for the plan to function effectively.

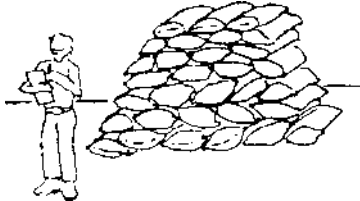
An example of harvest insurance under government sponsorship comes from Costa Rica.³ Since 1970, a Whole Harvest Insurance Scheme has been operated by the State-run National Insurance Institute. This covers up to 80 per cent of the value of disaster-damaged crops. This scheme incorporates aspects of disaster prevention (in that no crop loans are granted prior to the submission of a request for insurance); of agricultural extension and development (because certain minimum technical standards are required of farmers); of economic planning (as some control can be exercised over the different kinds of agricultural production); and of social engineering (in that insurance coverage helps to even out a farmer's income over good years and bad).

Mechanism for aid coordination

Establish a means to ensure a coordinated, useful and timely response from the international community if and when its assistance is required. Not only should such a mechanism incorporate inputs from bilateral donors, but possible assistance from non-governmental organizations should also be brought into the coordinating mechanism.

Stockpiling

Consider the types and amounts of materials needed; whether they can be stockpiled, and where. This is not an easy task. In particularly disaster-prone countries, the very poverty that makes large segments of a society vulnerable to disasters means that stockpiling significant amounts of relief materials is a luxury. However, donors often are willing to make contributions to various forms of "stockpiling," such as food security reserves.

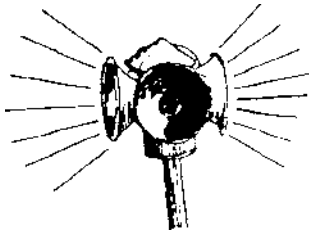


Q. Briefly describe how an entity in your region has successfully planned a resource base for disaster relief.

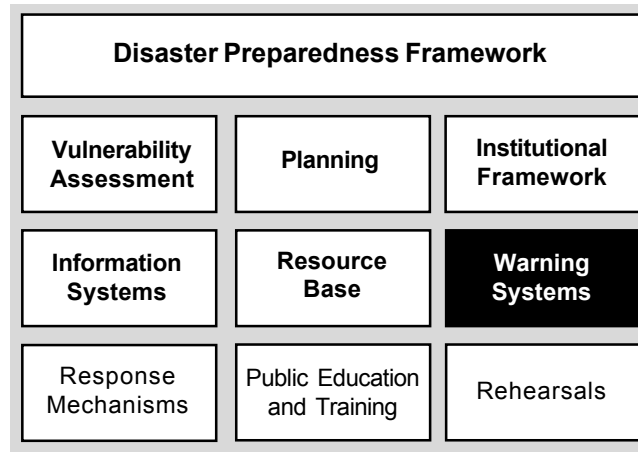
A. _____



³ Office of the United Nations Disaster Relief Coordinator, *Disaster Prevention and Mitigation*, Volume 11, Preparedness Aspects, United Nations, New York, 1984, p.14.



Warning systems



You must assume that functioning communications systems, such as telephones and telexes, may not be available in times of a major disaster. Begin to plan a warning system around that assumption. Consider what type of communications equipment will be needed and sustainable if power lines and receiving stations are destroyed. Preparedness plans should include provisions for access to alternative communication systems among police, military and government networks.

All too often, those for whom disaster warning systems are targeted have little faith in the warnings. This may be due to a human inclination to ignore what appears inconvenient at the time. It also reflects a general misunderstanding of the warning’s message, or frustration with yet another false alarm. Planners of effective warnings take into account the public perceptions of warnings, training related to reacting to warnings, as well as local conditions, attitudes and experiences.

Whenever possible, the international community should be forewarned about hazards that might lead to appeals for international assistance. The procedures for this form of warning should also be anticipated within a disaster preparedness plan.

In a report entitled “The Quantitative Evaluation of the Risk of Disaster from Tropical Cyclones,” issued by the World Meteorological Organization in 1976, The authors emphasize the connection between the capability of the forecasting service and the point at which preparedness measures should be implemented.⁴ It may be possible to put some measures into effect during a warning period. Others may have to be instituted at the beginning of the tropical storm season, or included in even longer-term action. An example is given, although times may vary from one country to another.

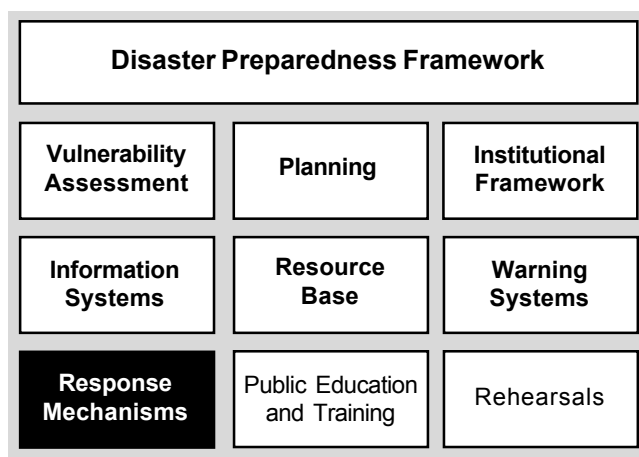
ANSWER (from page 29)

Answers might include any of the four elements set forth in the section on “Resource base.”

⁴ Office of the United Nations Disaster Relief Coordinator, *Disaster Prevention and Mitigation*, Volume 11, Preparedness Aspects, United Nations, New York, 1984, p.31-32.

- *Every 12 hours* an extended projection of the storm track for periods up to 72 hours ahead should be made available by the forecasting service so that all responsible authorities are able to initiate certain preparedness measures.
- *At least 36 hours ahead* the forecasting service should designate the coastal sector along which a tropical storm watch should be mounted. This would also be the signal for further preparatory action to be taken.
- *12-18 hours before the tropical storm's landfall* the forecasting service should issue warnings specifying the areas concerned, the expected wind strengths and rainfall conditions, and the likely points of storm surge. The hydrological service should issue warnings in regard to river flooding and the possibility of flash floods.

Response mechanisms



There are a vast number of responses that ought to be considered. Each response depends upon the nature of the threat. Some of the broader categories of response for a variety of hazards include:

- evacuation procedures
- search and rescue
- security of affected areas
- assessment teams
- activating special installations (such as emergency hospital facilities)
- activating distribution systems
- preparing emergency reception centers and shelters
- activating emergency programs for airports, harbors and land transport

Once an effective disaster preparedness plan is in place, these response mechanisms should be familiar to potential beneficiaries or to those with the responsibilities of implementing such measures. The matrix found on page 32 demonstrates a range of needs which may arise in different types of emergencies.

Needs which may arise in different types of emergency

Sectors in which UNICEF assistance might be considered

- Needs frequently experienced
- Needs sometimes experienced

C Depending on climate; may be needed if weather is cold and/or wet.
Needs rarely arise (or usually of low priority).

Where disasters occur in combination--e.g. floods following a tropical storm--the combined effects/needs must be considered.

Sector in which needs may arise	Sudden, cataclysmic disasters			Long term, continuing emergencies		
	Earth- quakes	Storms	Floods	Droughts, famines ^a	Conflicts	Displaced popu- lations
Food, nutrition and income						
Short-term general ration distribution	■	■	□	■	■	■
Agricultural production	■ ¹	■	■ ^R	■	□	■
Long-term selective provision of employment and/or food	□ ^U	■	■ ^R	■	■	■
Nutrition surveillance	■	□	□	■	■	■
Special feeding ²	■	■	□	■	□	□
Health services						
Reinforcement of management and personnel	■ ²	□	□	□	■	■
Reconstruction, transport and equipment	■ ³	■	□	□	■	■
Drugs and other supplies	■ ³	■	□	□	■	■
Surveillance for communicable diseases	■	■	■	■	■	■
Immunization	■	■	□	■	□	■
Diarrhoea control	■	■	■	■	□	■
Water supplies						
Distribution, storage, treatment	■	□	■	■	□	■
Rehabilitation/development of sources	■	□ ⁵	□ ⁵	■	□	■
Sanitation						
Excreta disposal	■	■	□ ^U	■	■	■
Garbage/refuse disposal	■	□	□ ^U	■	■	■
Personal hygiene	■	■	□ ^U	■	■	■
Vector control ⁴	□	■	■	■	■	■
Shelter and household functioning						
Emergency shelter	C	C	□	■	C	■
Reconstruction	■	■	□ ⁷	■	■	■
Blankets	C	C	□ ⁷	■	C	C
Household utensils etc.	■	□	□ ⁷	■	□	■
Child care and social services						
Community social services	■	■	■	■	■	■
Unaccompanied children	□	□	□	□	■	■
Schools/education	■	□	□	■	■	■
Overall management and logistics						
Reinforcement of management capacity and systems	■	■	■	■	■	■
Transport, vehicles, fuel, spares, maintenance	□	□	□	□	■	■
Storage facilities	□	□	□	□	■	■
Possible secondary effects/disasters	Fires, landslides, local floods, tsunamis	Floods, landslides, storm surge		Displaced populations	Displaced populations	

^U Primarily in urban areas

^R Primarily in rural areas.

¹ Only if major irrigation works damaged.

² Assuring appropriate weaning foods and food for vulnerable groups (possible supplementary-feeding); therapeutic feeding for severely malnourished children; combating Vitamin-A or other specific deficiencies

³ For casualty treatment in first few days only.

⁴ Only if ground-water flows changed.

⁵ If wells or usual surface sources contaminated or inaccessible.

⁶ Depending on the type of construction.

⁷ Only in cases of destructive "flash" floods (in valleys).

⁸ "Food emergencies" without displacement

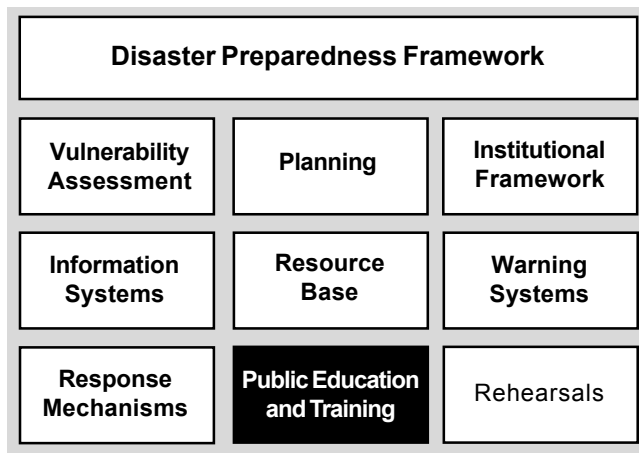
Volcanic eruptions: Possible needs (and secondary effects) are similar to those for earthquakes within the area directly affected by the eruption. There may be population displacements

Tsunamis (tidal waves caused by earthquakes): Possible needs are similar to those of tropical storms plus floods, with the added complication of contamination of wells and agricultural land by salt water.

Epidemics: Needs usually include specific drugs, transport, surveillance, improvement of water supplies, personal hygiene and sanitation. Reinforcement of health service management may also be required

Source from: *UNICEF, Assisting in Emergencies*, United Nations Children's Fund, 1986.

Public education and training



One emphasis of a disaster preparedness plan should be to anticipate the requirements for a disaster relief operation and the most effective ways of meeting those requirements. The planning process will only be effective if those who are the ultimate beneficiaries know what to do in times of disasters and know what to expect. For this reason, an essential part of a disaster preparedness plan is the education of those who may be threatened by disaster. Such education may take the following forms.

Public education in schools

Standardized curricula for children and young adults should include information about actions which should be taken in case of a disaster threat or occurrence.

Special training courses

Workshops should be designed for an adult population, either specifically or as an extra dimension of on-going programs, such as literacy or cooperative training sites.

Extension programs

Community or village-based outreach workers should be trained to provide relevant information.

Public information

Although television, radio and the printed media will never replace the impact of direct instruction, sensitively designed and projected messages can provide a useful supplement to the overall process.

In establishing educational training, remember that education is often a two-way process in the field of disaster preparedness. For example, if a group does not fully comprehend the warning sequences in a tropical storm preparedness plan, it may be that the warning sequences need to be reworked.

Training of those who will implement portions of the disaster preparedness plan is essential. Those responsible for issuing warnings must be trained as well as those who will have direct relief functions. Training cannot be a one-time event. Refresher courses are essential. Training should be active in every way possible. Actual exercises should be performed, such as evacuation drills.

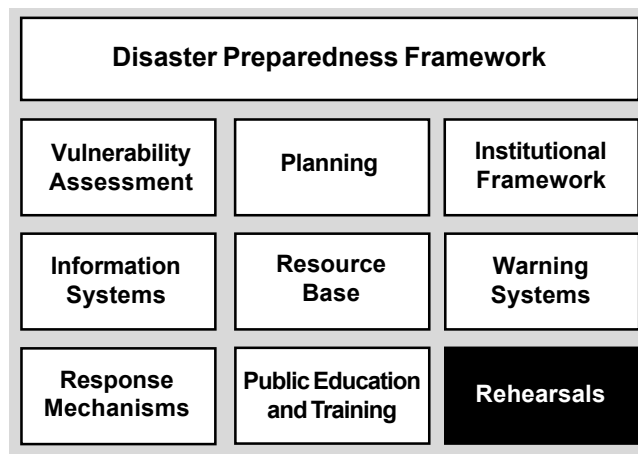
An effective disaster preparedness plan will also give practical guidelines on its various components, such as organizing reception camps and relief shelters. These guidelines should be the “basic text” for related training exercises. The figure found on page 36 is a poster from New Zeland which effectively demonstrated disaster preparedness actions for the general public.

Q. *In which aspect of public education or training has your agency best contributed to disaster preparedness? Explain why.*

A. _____



Rehearsals



As with most simulations, disaster preparedness rehearsals cannot portray the full dynamics and chaos of a disaster relief operation. However, this is no excuse for avoiding the need to rehearse the disaster preparedness plan. Rehearsals will reemphasize points made in separate training programs, and test the system as a whole. Rehearsals invariably expose gaps that otherwise might be overlooked.

Rehearsals must be conducted system-wide and taken seriously. System-wide means that all the components which would be involved in a real disaster situation, from central to local authorities, should be rehearsed. Be forewarned that cynicism and halfheartedness may dog the rehearsal. You must persevere, because it is the nearest anyone will get, until disaster strikes, to seeing if the plan is effective. Rehearsals are also the only way to keep plans fresh, especially during extended periods without disasters.

A two-day exercise held in November 1982 in Yugoslavia simulated an emergency at the Krsko nuclear power plant.⁵ More than 70,000 people took part, including 8,000 officials in off-site and on-site response groups and organizations. As part of the exercise, one village in the vicinity of the plant was selected to demonstrate full-scale evacuation, and people in a wider area were told to take shelter. Precautions were taken to prevent contamination of the food supply; fire-fighting demonstrations were held under full radiological contamination control; decontamination facilities were set up, and traffic controls were established.

⁵ Office of the United Nations Disaster Relief Coordinator, *Disaster Prevention and Mitigation*, Volume 11, Preparedness Aspects, United Nations, New York, 1984, p.101.

ANSWER (from page 34)

Answers might elaborate on any of the four forms of education and training listed above.

WHEN DISASTER STRIKES HERE'S WHAT TO DO

VIOLENT EARTHQUAKE

(When it is difficult to stand or walk)

IMMEDIATE ACTION

Indoors:

Get the family into doorways, or under tables; bedridden folk under beds; keep away from windows and chimneys. Do NOT rush outside.

Outdoors:

Keep clear of buildings, high walls, or dangling electric wires. Downtown, shelter under archways or doorways but do NOT re-enter damaged buildings.

Driving:

If you can feel the earthquake when driving, it is serious. Pull off the road, stop and stay in the car.

AS SOON AS YOU CAN

Put out all domestic fires and heaters.

Turn off at mains electricity, gas, home heating oil and water if you suspect that house has been damaged.

Leave the house if a fire starts that you cannot put out at once.

Leave the house if you detect a gas leak after turning it off at the mains. Open all doors and windows.

Save water in tanks and cisterns. Fill your emergency containers.

Leave the fridge shut as much as possible if power has failed.

Free dogs and cats.

Follow your Civil Defence checklist — back cover.



POWER OFF GAS

heating oil and gas if you have to leave the house.

Lock all outside doors and windows if you have to leave the house.

Do NOT enter floodwater on foot or in a car if it can be avoided. Never wander around a flood area on your own.

Follow your Civil Defence checklist — back cover.

TSUNAMI (Commonly called Tidal Waves)



If you are in low lying areas near to the sea or estuary:

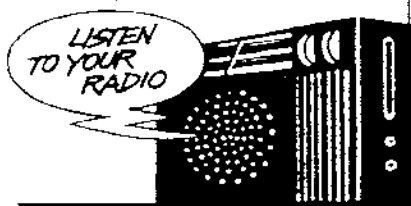
Listen to the radio for information and advice.

Act as for floods.

Move to high ground or 500 metres inland if tsunami warning is given. Keep away from streams flowing into the sea.

Never go down to the beach. If you see a wave it will be too late to escape it.

Follow your Civil Defence checklist — back cover.



STORM FORCE WINDS AND CYCLONES

Listen to the radio for information and advice. Allow considerable margin for safety. Storm may change direction, speed or intensity within a few hours.

Preparation — If storm force winds or severe gales are forecast for your area.

Store or secure loose boards, corrugated iron, rubbish tins or anything else that could become a missile.



Tape up large picture windows.

Follow your Civil Defence checklist — back cover.

When the Storm Hits

Stay indoors and shelter in strongest part of the house.

Listen to the radio and follow instructions.

Open windows on sheltered side of house if roof begins to lift.

Find shelter if in the open.

VOLCANIC ACTIVITY

Listen to the radio for information and advice.

Find shelter but NOT in a building with a low pitched roof if heavy ash is falling. Avoid basements or confined spaces where gases may accumulate.

Move to a ridgeline if you are in the open. Keep well above the shoreline of large lakes.

Wear substantial covering over your head and body if you have to move in an ash shower. Breathe through a handkerchief, carry a torch even if it is daytime and move as quickly as you can away from the eruption.

Follow your Civil Defence checklist — back cover.



KNOW WHAT YOU HAVE TO DO
BEFORE YOU HAVE TO DO IT.



FLOOD

Listen to the radio for information and advice.

Disconnect all electrical appliances and move all valuable personal and household goods, food, and clothing out of reach of water if you are warned or if you suspect that flood waters may reach the house.

Prevent dangerous pollution — move weedkillers and insecticides out of reach of the water.

Turn off electricity, home

■ CASESTUDY

Citizenry-based disaster preparedness in the Philippines

Because of their geographic location and physical environment, the citizens of the Philippines suffer from the effects of typhoons, storm surges, volcanic eruptions, floods, droughts, earthquakes, tsunamis and landslides, in addition to “red tide” infestations of seawater fishing areas. The country is situated on the western rim of the Pacific Ocean where 50% of the world's tropical storms originate, and on the “ring of fire” where 80% of the world's earthquakes and volcanic eruptions occur. Another major factor contributing to vulnerability is increasing poverty levels: more than 70% of Filipinos live below the poverty line. Furthermore, approximately 50% of the housing in the country is made of light materials which are not resistant to strong winds and floods.

Description of events: Typhoons and floods are the main disaster events in the Philippines. According to government estimates, typhoons cause an average of 500 deaths per year and damages of US \$ 128 million. Heavy rains accompanying typhoons, exacerbated by deforestation, soil erosion and siltation/clogging of waterways, cause extensive flooding and landslides. In the typhoon “Uring” disaster of November 1992, more than 8,000 people were killed in flashfloods, presumably brought about by uncontrolled logging.

A major earthquake has occurred in the Philippines once every six years. In 1990, a magnitude 7.7 earthquake killed 1,666 and caused US \$ 440 million in damage. Of the 220 volcanoes in the country, 21 are considered active. In June of 1991, Mt. Pinatubo erupted resulting in US \$ 400-600 million in damage, affecting 1.2 million people with ashfalls, mudflows and lahars and permanently altering the environment.

In addition to the “natural” hazards, human have created their own disasters by engaging in armed conflict for the past twenty years. Insurgent groups have established strongholds in many parts of the country where fighting occurs with government troops. Hundreds of thousands of persons have become uprooted or displaced from their homes, posing significant social and economic costs.

Government disaster mitigation and response:

The Philippines loses about 2% of its GNP to disasters each year, has a population growth of 2.3% and a considerable foreign debt load. At least a five percent growth in GNP per year is required to maintain income levels. This growth level, however, was not achieved between 1986-91 and vulnerability to disasters has increased. Need to boost the GNP has led to exploitation of resources resulting in deforestation, erosion and pollution of water sources.

A national council was established in 1978 to oversee disaster mitigation as mainly an advisory and coordinating body, but it lacks funding and decision making power. Two national early warning systems agencies suffer the same shortages of funding and resources. A calamity fund which can be appropriated for relief and rehabilitation has been slow to respond in the past, and the result has been a high level of dependency on external relief assistance.

Citizen's Disaster Response Network: In the late 1980's, concerned citizens began to set up a nationwide network for disaster response called Citizens' Disaster Response Center (CDRC) which later became CDRN (network). The key concept behind the agency was the recognition that vulnerable sectors of the population should be the main actors in disaster response and not merely victims requiring outside assistance. This prompted preparedness and resource mobilization efforts. CDRN tries to provide a framework for helping communities avoid or recover from disasters. It also seeks to be development oriented in its approach to relief and rehabilitation operations.

Interagency Coordination-Operating from 19 centers, CDRN collaborates with municipal and village level disaster response committees, particularly in areas affected by the major disasters mentioned above. CDRN went on to establish relationships with other agencies on a national level and formed an interagency network composed of

CASE STUDY continued

nine agencies including four NGOs. Each unit of the network can be activated to form an emergency structure composed of a disaster coordinator other staff dealing with information, local resource generation, finance and logistics and field officers. CDRN relies on peoples' organizations (POs) from local populations to mobilize disaster volunteers in sufficient numbers to perform different aspects of disaster management.

Planning: Agencies work together to avoid duplication in drawing up of a disaster operations plan. The plan includes:

1. Analysis of vulnerabilities and capacities –

This includes summing up of the physical, social and motivational conditions of the communities, including coping mechanisms and responses. National data is verified through field visits.

2. Situation assessment – Information gathering activities must be planned to be the basis for rapid implementation and to provide the direction for immediate interventions.

3. Adequate logistic support – The importance of earmarking funds for emergency relief operations was underscored by the 1990 earthquake and 1991 eruptions. A stockpile of goods is needed for immediate access, and transport and communications networks should be pre-planned.

Training: CDRN has developed training modules relative to specific problems in the Philippines. Following the Mt. Pinatubo eruption of 1991, CDRN training included education inputs on volcanoes and volcanic eruptions, evacuation, and drills on relaying warning signals. First, the disaster response networks and the POs are given training and they, in turn, conduct education campaigns in the affected communities.

Formation of volunteer teams: The experience of CDRN in forming grassroots volunteer teams has shown that the teams lessen the impact of disasters and reduce costs of relief and rehabilitation. A program has been set up for the communities which continue to be threatened by eruptions and lahars from Mt. Pinatubo. The functions of this program, named the Barangay Disaster Response Unit, are:

Disaster Preparedness: training in skills and operations related to disaster preparedness such as hazard mapping, disaster planning and community drills.

Mitigation: implementing development projects to lessen the effects of disasters.

Social mobilization: enlisting support from the entire community and mobilizing members to deal with issues and problems.

Networking: linking with government agencies, the private sector, POs and NGOs.

Collaboration to solve problems-CDRN does not take the place of government agencies but rather cooperates with them to exchange information and services. Interaction with NGOs has facilitated mutual learning and understanding and, most importantly, the maximization of resources. Both local and foreign donor agencies have much to contribute beyond providing funds, in terms of expertise, ideas and suggestions. Realizing that certain issues affect vulnerability to disasters, CDRN also collaborates with NGOs and POs to seek solutions to the problems of foreign debt and environmental degradation. CDRN acts as an advocate for human rights and works toward finding a settlement to the armed conflict.

Source: Delica, Zenaida G., "Citizenry-based Disaster Preparedness in the Phillipines", in Disaster vol. 17, Number, pp. 239-247., September, 1993.

■ SUMMARY

Planning for disaster preparedness involves nine categories of planning activities.

- 1. Vulnerability assessment:** a dynamic on-going process of people and organizations that
 - assess hazards and risks
 - establishes a data base that focuses upon the likely effects of potential hazards
 - anticipates relief needs and available resources.

- 2. Planning:** a process
 - for generating clear goals and objectives
 - which identifies specific tasks and responsibilities for people and agencies in disaster emergencies
 - and includes grassroots organizations, NGOs, local and national governments, donors and UN agencies which have a long-term commitment in vulnerable areas.

- 3. Institutional framework:** the “horizontal” and “vertical” coordination of people and organizations which avoids the creation of new structures for disaster preparedness and instead works within established networks and systems.
 - emphasizing the strengthening of existing communities and structures
 - responsibilities which reflect established expertise
 - and roles and responsibilities which are clearly defined and appropriate.

- 4. Information systems:** coordinate means of gathering and disseminating vulnerability assessment and early warning within and between agencies and organizations and with the public

- 5. Resource base:** anticipated disaster relief and recovery needs should be made explicit and specific arrangements and written agreements should be established in order to assure the provision of goods and services as required, including:
 - disaster relief funding
 - disaster preparedness funding
 - mechanisms for aid coordination
 - stockpiling.

- 6. Warning systems:** must be developed that will convey to the public effective warnings without assuming that normally functioning communication systems will be available. In addition, the international community should be forewarned about hazards that might lead to appeals for international assistance.
- 7. Response mechanisms:** a vast number of disaster responses ought to be considered, incorporated into the disaster preparedness plan and communicated to the population that would coordinate and participate in those responses if a disaster occurred.
- 8. Public education and training:** through a variety of public education programs those who may be threatened by a disaster ought to learn what to expect and what they will be asked to do in times of disasters. As education providers present warning systems and response mechanisms to the public they should plan to learn from local populations problems and gaps that may exist in the plan.
- 9. Rehearsals:** provide opportunities to reemphasize training program instructions, identify gaps that may exist in the disaster response plan and inform on-going revisions of that plan.

PART 2

INTERNATIONAL COLLABORATION FOR PREPAREDNESS

In this part of the module you will learn:

- *three distinct roles for the U.N. system*
- *three obstacles to disaster preparedness at the national level*
- *four areas in which U.N. agencies can assist in developing disaster preparedness plans*
- *four roles of inter-agency collaboration at the field level through a UN DMT*
- *four ways UNDP can promote preparedness activities*

Disaster preparedness plans and their implementation are the responsibility of the government. The United Nations can facilitate and enhance government efforts, but the government must formally initiate and control the disaster preparedness and response processes.

In spite of government primacy in the realm of disaster preparedness, most emergency situations of significant magnitude in the developing world require some form of collaborative assistance from the international community. This part of the module focuses on ways the international community can support national government disaster preparedness activities. It also analyzes how the United Nations system can facilitate these activities.

The terms “international community” and “international system” are largely abstractions. There are few manifestations of community or system when dealing with the various nations, international governmental and non-governmental organizations that inhabit the globe. When discussing aspects of international involvement in disaster management, you will usually be dealing with a random assortment of governmental, non-governmental and international institutions that form part of an ad hoc network.

This perspective of the international community includes three obstacles that directly affect disaster preparedness at the country level. The first is that support for national disaster preparedness efforts by those who might be most able to assist, such as bilateral donors, is by no means a certainty. Their assistance is not guaranteed. Therefore, it is important from the outset to establish the type of support a government’s disaster preparedness initiative might receive. This will entail not only establishing an effective means of interesting such donors in these activities, but also effective means to keep them interested.

Secondly, there are many reasons why governments are wary of including “outsiders” in the formulation of a disaster strategy or plan. One clear reason is that the planning process itself, if undertaken openly, exposes many of the inherent weaknesses of government perhaps resulting in

The terms “international community” and “international system” are largely abstractions.

embarrassing explanations about the causes of disaster vulnerabilities. These are insights that few governments wish to have paraded before the world. Yet, once a government accepts the rationale for a sound disaster preparedness plan, it will have to accept that the success of that plan may depend upon expertise, resources and technical assistance that may depend to some degree upon international contributions.

Finally, on some occasions, the inability of the United Nations “family” to work together towards a common country objective has proven disappointing. However, since much of the ability of U.N. agencies familiar with disaster management will be needed in the disaster preparedness formulation process, there exists an opportunity to advance effective collaboration.


Q. *Consider an example of preparedness planning in your region involving collaboration by more than three international entities. Describe the primary role of three such organizations.*

A. _____

_____ 

Q. *List three obstacles related to the ad hoc structure of the international relief system which directly affect disaster preparedness at the country level.*









A. _____

_____ 

The United Nations System

The role of the United Nations in disaster management is rapidly changing. A variety of arrangements need to be agreed upon amongst the agencies themselves if these changes are to lead to more effective assistance to disaster-afflicted peoples. There are already various established agency roles and functions in the realm of disaster management.

The following international agencies have functions that support the practical implementation of disaster preparedness plans.

FAO		planting assessments, crop forecast assessments and food information early warning system
UNDP		disaster-to-development projects, technical assistance for disaster preparedness plans and strategies, and in-country resident coordinator of U.N. system
UNDHA		information coordination, disaster assessments, mitigation and disaster preparedness planning
UNICEF		vaccination programs and supplementary feeding programming in times of emergencies for vulnerable groups and water and shelter programs
UNHCR		emergency planning for refugee influxes
WFP		relief food needs assessments and food or non-food logistics
WHO		technical assistance on epidemiological matters in times of emergencies and health preparedness
WMO		tropical storm meteorological information

Each of the above have specialist technical literature for particular fields of competence. UNDP, WFP, UNICEF and UNHCR have excellent manuals on disaster preparedness and management that should be incorporated into preparedness planning exercises. DHA-Geneva has a publication series on disaster prevention and mitigation that is another valuable resource.

As a means to strengthen the coordination of humanitarian emergency assistance, the Secretary-General has created a high level post of Emergency Relief Coordinator. This post will ensure better preparation for, as well as rapid and coherent response to natural disasters and other emergencies. Responsibilities of the Emergency Relief Coordinator include consolidated appeals, a register of standby capacities and a central emergency revolving fund. This US \$ 50 million fund provides a cash-flow mechanism to ensure the rapid and coordinated response of the organizations of the U.N. system. Advances to operational organizations of the system can be made with the understanding that they will reimburse the fund.

The U.N. at headquarters level

In developing national disaster preparedness plans, there are at least four areas in which U.N. agencies can be of immediate assistance.

Headquarters support for disaster preparedness initiatives

It is important for agencies at the field level to know that disaster preparedness initiatives have the support of their respective headquarters. Beyond the intangible issue of moral support is the more practical matter of establishing the initiative as a recognized priority at the field level.

Short-term consultancies, study tours and exchange of experts

Agencies at headquarters level should have better insight as to which experts might be available to support field level efforts, in both the planning and implementation stages. Agencies should compile rosters of available experts. These rosters should be exchanged with other agencies. Agencies should review hiring procedures to ensure the rapid fielding of experts.

Wherever possible, agency workers should encourage government officials to discuss disaster preparedness measures at headquarters levels. These workers should take study tours to countries that have well established disaster preparedness plans. Such exchanges should be worked out between headquarters and the field office.

Emergency funding

More flexible systems will have to be developed among some of the agencies to improve the use of field office resources in times of emergencies, and to ensure additional resources for emergencies from headquarters. Such flexibility should be recognized as part of the anticipated resource base in the national disaster preparedness plan.

Headquarters procedures and scheduling

Through their field offices, agencies will have to make sure that the proposed disaster preparedness plan incorporates headquarters procedures and the scheduling necessary for an agency to respond effectively to various crisis scenarios.

ANSWER (from page 42)

Answers might include specific role descriptions of U.N. agencies, NGOs or bilateral donors.

ANSWER (from page 42)

Support for national disaster preparedness efforts is not guaranteed; national governments may be wary of including "outsiders" in their planning processes; and U.N. agency collaboration may be less than ideal.

The U.N. at field level

At the field level, inter-agency collaboration can have a positive impact on devising and implementing a disaster preparedness plan. Four components of such collaboration are essential.

An interagency team

Each agency should designate an individual to become part of an inter-agency “Disaster Management Team” [UN DMT]. Because agencies increasingly have had field expertise in disaster management, the designated official would hopefully be an individual with such expertise. For example, where UNHCR is involved in relief management for refugees, a UNHCR representative should be invited to become a member of the UN DMT.

The UN DMT should be established as a permanent, functioning inter-agency body at the field level. Each member agency should have defined sectoral responsibilities. The chair of the DMT should be the Resident Coordinator. If agreed among the members of the DMT, the DMT’s secretariat should be under the responsibility of UNDP’s designated DMT participant, the “Disaster Focal Point.”

UN DMT meetings should be held at regularly-scheduled intervals. The frequency of meetings might be adjusted in times of known potential threats, such as during rainy seasons.

Purpose of the DMT

The DMT should be a forum in which information is exchanged on a variety of matters. Long-term risk reduction and preparedness arrangements within the country should be reviewed. Development projects that would have some direct or indirect impact upon disaster prevention or preparedness should be part of this review.

Reviews of preparedness arrangements within the U.N. should include: mechanisms for the coordination of U.N. emergency assistance; inputs and operations between the government, bilateral donors and NGOs; location of personnel in the field when there is an immediate threat; and lists of resources available for specialized emergency activities.

UN DMT members should discuss the analysis and interpretation of data derived from early warning systems, both from within the country and from outside. They should also review information requirements needed for reporting formats, such as U.N. situation reports, to be disseminated either on preparedness or on relief activities.

The UN DMT as a focal point

The UN DMT should serve as the focal point for U.N. assistance in the preparation of national disaster preparedness plans. In collaboration with government counterparts, the DMT should review and comment upon proposals at their various stages. Representatives of the DMT should be on hand for expert advice during the policy formulation process. Where possible, these representatives should seek resources from individual agencies to bolster technical assistance and provide additional expertise.

The UN DMT and its region

The DMT should also look at disaster preparedness in a regional context. The activities of a neighboring nation may directly affect those of another. Early warnings on locust infestation, for example, is but one practical issue in which regional cooperation should be incorporated into a disaster preparedness plan. While governments will know regional and international organizations relevant to their interests, the DMT might be useful in demonstrating specific ways that such organizations might be used to enhance particular disaster preparedness programs.

The UNDP in the field

UNDP's Resident Representative (ResRep), as U.N. Resident Coordinator at the country level and chair of the UN DMT, has a central role to play in the field of disaster preparedness. As Resident Coordinator, this person will be in a position to promote linkages between disaster preparedness initiatives and development activities. He or she will be able to use this position to promote disaster preparedness planning at senior government levels. The effectiveness of the UN DMT depends upon the leadership ability of the Resident Coordinator.

To assist the disaster preparedness planning and implementation process, the Resident Coordinator, in close collaboration with sister agencies, will have to ensure that the UN DMT is established, and that regular meetings are organized in order to cover the types of issues listed above. The Resident Coordinator must also ensure that a secretariat is established for the UN DMT, with proper facilities and staffing to enable the general functioning of the secretariat. Key functions in this regard will include the collection and dissemination of information, reports and studies. The secretariat should serve as a focal point within the U.N. system for essential data on:

- National policies regarding acceptance and use of international assistance, including external teams or personnel; policies concerning the use of communications equipment; and policies concerning specific types of foods and medicines.
- Government structures, including relevant names, telephones/fax/telex numbers of key personnel within central, regional, and local authorities.
- Names and telephone/fax/telex numbers of institutions outside the country that could be of assistance in times of crises.
- Baseline data on each distinct disaster prone area, which should be part of the ongoing process for vulnerability assessments.

In close collaboration with the government and sister agencies, UNDP at the field level should review with the government the purpose and prospects for a disaster preparedness plan. If such a plan is already in place UNDP should review with the government ways that such a plan might be enhanced. UNDP should also discuss with the government ways to sensitize its authorities at local, regional and central levels to the needs of disaster preparedness. Finally, UNDP should promote specific projects concerning disaster preparedness and disaster preparedness planning. There are a range of activities that such projects might include, such as:

- Disaster preparedness planning projects, intended to launch the entire process of disaster preparedness. Features of such a project might include aspects of sensitization, such as overseas study tours and conferences, technical assistance (including consultants who might be able to assist in the planning process), and workshops to enable formulation of the proposed plan.
- Essential studies as part of an overall plan, such as a transport capacity study or vulnerability assessments.
- Institution-building projects, designed to strengthen already existing disaster preparedness focal points or to develop more effective early warning systems.
- Training projects that develop appropriate disaster planning courses within country. These projects might enable key personnel to take advantage of overseas courses. They might be designed for vulnerable communities. The range and importance of training measures must never be overlooked.

U.N. agencies and development projects

An essential role for U.N. agencies should be to review those projects that are within the Country Program that might be linked with disaster preparedness planning. Present development projects should be reviewed in an effort to determine how these projects might be effectively linked to preparedness measures. Conversely, U.N. agency staff should consider how preparedness measures might enhance the development process. Through the UN DMT, other agencies might review their own projects along similar lines.⁶

Well-established working relations with government authorities are essential if U.N. agencies are to provide effective assistance in the disaster preparedness planning process. The relations which U.N. agencies have with the non-governmental and bilateral communities are equally important. UNDP, through the UN DMT, should seek wherever feasible and politic to support the NGO community. This may involve attending meetings when invited to discuss initiatives being undertaken by the U.N. system. If acceptable to sister agencies and the NGOs, other members of the U.N. system should attend such meetings to give briefings on their respective activities.

U.N. agencies should establish means to promote disaster preparedness activities proposed for the NGO community, such as workshops at training sites. If acceptable to government and NGOs, U.N. agencies should make every effort to incorporate the roles of NGOs into the formal structure of national disaster preparedness planning and implementation. Finally, U.N. agencies should ensure that the bilateral community is kept apprised of events in the disaster preparedness planning process. Regular meetings with donors are one means of establishing sound working relations. However, whether such meetings should be held under the auspices of the U.N. is an issue that may prove sensitive to the government as well as to bilateral donors. The appropriate mechanism for bilateral liaison will have to depend upon the conditions within each country.

The appropriate mechanism for bilateral liaison will have to depend upon the conditions within each country.

⁶ See also the Disaster Management Training Programme module titled *Disaster and Development*.

While effective means for bilateral consultation are generally important in light of the roles that bilateral donors play in disaster relief, it is important to keep in mind that:

- Effective measures for bilateral involvement expedite obtaining resources for disaster preparedness planning and implementation.
- In particularly disaster-prone countries, donor governments have occasionally provided a fund for the Resident Coordinator to use for disaster preparedness and relief purposes. This fund has been used at the discretion of the Resident Coordinator, based upon the monitoring authority of bilateral ambassadors.

Information dissemination is vitally important during a relief operation and only slightly less so in the disaster planning process period. It should be an essential responsibility of UNDP, in conjunction with the DMT, to devise appropriate public information formats. These formats should serve to provide a regular flow of information to the international community (including U.N. agencies at headquarters levels and capitals of key bilateral donors) as well as members of the international community in-country and relevant government departments.

Information on relief assessments or preparedness measures, intended to be of benefit to the nation, can be regarded as highly sensitive. This is true not only for the government but also for sister agencies and NGOs. You must therefore think carefully about the contents of your various outputs. Two common types of information formats include situation reports (“Sitreps”) and newsletters.

Sitreps have become the standard source of information on emergency activities throughout the U.N. system. There is no rigid format for these reports. The message should include key activities related to preparedness, relief and needs assessments, noting requirements fulfilled and unfulfilled. The frequency of sending in Sitreps normally depends upon the level of crisis at hand.

If time allows, newsletters covering disaster preparedness activities serve to keep a wider community informed about events being undertaken in the field. Newsletters normally serve more as a promotional vehicle and do not cover issues that might be deemed sensitive. The intervals at which newsletters are published depends upon the amount of time at hand in the UN DMT secretariat and the number of activities that the DMT considers worth publicizing.

■ SUMMARY

Most emergency situations of significant magnitude in the developing world require some form of collaborative assistance from the international community. The United Nations system can facilitate coordination of international community efforts which seek to support national government disaster preparedness activities. Through a variety of agencies at the headquarters level, the U.N. system can be of immediate assistance by: supporting disaster preparedness initiatives; providing short-term consultancies, study tours and exchange experts; generating emergency funding support; and mobilizing field office resources.

At the field level, U.N. inter-agency collaborative efforts may be coordinated efficiently and effectively through a designated “Disaster Management Team” (DMT). As a focal point for U.N. assistance the U.N. DMT can serve as a forum in which information is exchanged on a variety of matters, including long-term risk reduction and preparedness arrangements, review and upgrading of preparedness plans, the international network of support, and effective linkage with on-going development efforts.

PART **3**

IMPLEMENTING DISASTER PREPAREDNESS PLANS

In this part of the module you will learn:

- four problematic reactions related to promoting preparedness plans at the national level
- three ways to avoid common promotional pitfalls
- four approaches for establishing a reliable base of information
- four plausible institutional structures for preparedness planning
- three lists of advice related to institutional structures, NGOs and bilateral donors

Promote the plan at the national level

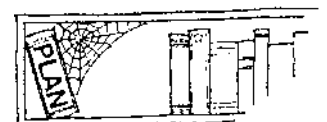
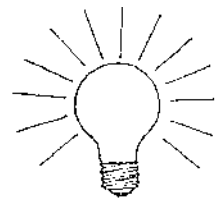
Many government officials will be skeptical about the benefits of disaster preparedness plans. Introducing the subject of disaster preparedness strategies or plans to government officials may elicit at least one of the following responses:

A tremendous idea! This is just the answer all who are concerned with disaster management want to hear. In reality, the respondent may have little idea of what such a plan entails. Even if this person appreciates the broad principles that are involved, he or she may become wary when the full range of necessary measures begins to unfold.

We need development, not disaster preparedness! A difficult argument to refute, particularly if an official assumes that the two are mutually exclusive. Ministries of finance and economic planning are often the most reluctant to dedicate time and funds to a proposal that seems tangential to their major concern of development. Focusing on development projects often reflects institutional success and generates considerable external assistance.

We already have one. Excellent, but what does the official mean? The government may have a designated disaster relief office in some back ministerial corridor. That one room and one officer hardly constitute an effective disaster preparedness plan. It is not an easy task to suggest that efforts which the government has made to date are not adequate.

We don't need one. This response is usually followed by a description of the effective role played by national Red Cross or Red Crescent Societies in times of disasters; or the way the government handles these matters effectively on an ad hoc basis; or an explanation that the government has other priorities.



Q. Review the common reactions listed above. How would you respond to each of these reactions when promoting a disaster preparedness plan?

A. _____



Given these common responses, it is important to sensitize reluctant government officials to the virtues of disaster preparedness. A combination of the following measures may assist in the process.

Clarify essential points

There is no trade-off between disaster preparedness and development. The two are closely linked, conceptually and practically. An effective disaster preparedness strategy or plan will:

- **Protect development.** Disasters delay, or, in the worst case, destroy progress that has been made to date. An effective disaster preparedness plan should be integrated into the development process so that the former can protect the latter.
- **Introduce disaster mitigation.** Disaster mitigation measures such as safer buildings, “off-the-shelf” food-for-work programs or cash-for-work public works programs not only protect people and their assets, but also speed up the development process if they are adequately designed.
- **Strengthen the local infrastructure.** For example, the institutional and communications structure required in disaster preparedness necessarily strengthens the overall local infrastructure.
- **Exert pressure of traditional aid donors.** This may affect the overall amounts these donors allot to development. Conversely, donors are increasingly interested in spending resources on disaster preparedness measures. Many donors now realize that disaster preparedness is cost effective when compared to the price of emergency response.

Seeing is believing

For those government officials who doubt the overall value of disaster preparedness, organize study tours to countries where disaster preparedness plans (for example, China) and strategies (for example, India) have proven highly effective.

ANSWER
The text that follows the question contains three measures which could be part of your response.

Organize conferences and workshops

If this stage is reached, there are converts already on the way. However, since a disaster preparedness plan will require the commitment of the government and relevant non-governmental organizations, conferences and workshops afford good opportunities to convince those in doubt.

Establish a reliable information base

The more disaster-prone a country, the less reliable the information base is likely to be. This point goes to the heart of what disaster vulnerability is all about: extensive poverty, weak infrastructure, and inadequate administration. Under such conditions, it is difficult to maintain a reliable information base.

There is often a “data game” that is played before, during and after a disaster. Sometimes there are political reasons for governments to provide unreliable data. Certain demographic data might, for example, reflect an official’s regional affiliation. Infrastructural data might reflect the wishful thinking of a ministry that has not completed a project as well as it suggests. Agricultural data might reflect an optimistic forecast of the minister for agriculture. Such games are also played by international organizations. An agency might exaggerate the number of water projects it has completed, or assume that there are more primary health care facilities in a particular region than in fact is the case. At times agencies assume that food needs are greater than they are to avoid being accused of underestimating the extent of a possible crisis.

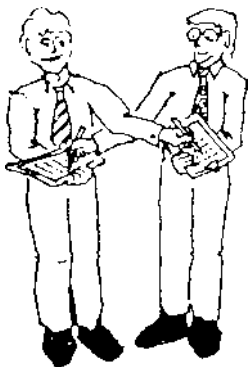
Even under the best of circumstances, baseline data and information systems cannot be perfect. Gathering sensible data and approximate information is a far more realistic information goal. It is highly recommended to implement the following information systems at the beginning of the planning process.

Vulnerability assessments

These assessments are particularly important for planning design purposes and for establishing a basis for information flows and updates. These assessments should be undertaken with the same rigor as any development project. With a team leader that knows a particular region well, sectoral experts from UN organizations should join with their national counterparts to undertake the sort of full-scale assessment.

Joint-information programs

Joint data and information systems between the UN disaster preparedness focal point and this person’s government counterpart are vital for both the planning process and the plan itself. The fact that the government is working from the same information base that the UN focal point is using will smooth debates that might arise. In project proposals relating to the disaster preparedness plan, be sure to allot funds for computer equipment, training, and whatever else the counterpart office might require to maintain an effective system.



Cross-checking

Even in the most disaster-prone country, lack of data is less often a problem than a plethora of conflicting data. Non-governmental organizations often know more about particular areas than government offices. Some procedure should be established, in agreement with the government counterpart, to cross-check information with other organizations, including other government ministries at central and regional levels.

Joint-assessment process

As part of the disaster preparedness plan, it should be formally agreed that in times of emergencies, a team or teams comprising agency representatives of the government focal point, the UN DMT, the government focal point and non-governmental organizations familiar with the affected area assess the situation jointly.

Such procedures should be formally adopted within the proposed disaster plan. Joint assessments can reduce duplication of efforts, promote a degree of consensus about damage and needs, and ensure that subsequent appeals have national as well as international endorsement (when external aid is needed).

Define appropriate institutional structures

It is not easy to determine the home base for a disaster focal point. There are advantages and disadvantages to consider related to various options: in the Prime Minister's office, in one of the ministries, or as a separate entity.

A key feature of a disaster preparedness plan must be to ensure that line ministries have vested interests in the disaster preparedness proposal. This means that resources and responsibilities should be parcelled out amongst all those deemed important to the plan. The idea is not to take away the medical functions of a ministry of health, but rather to enhance its capabilities to respond in coordination with other ministries. That does not necessarily mean that a ministry of health would be responsible for the logistics of emergency medicines. It might mean that its responsibility for ensuring emergency medical provisions would be acknowledged, that its institutional strength at local levels would be enhanced, and that its commitment to the plan might be greater.

Q. *In your country, which government agency is the focal point for disaster preparedness?*

A. _____



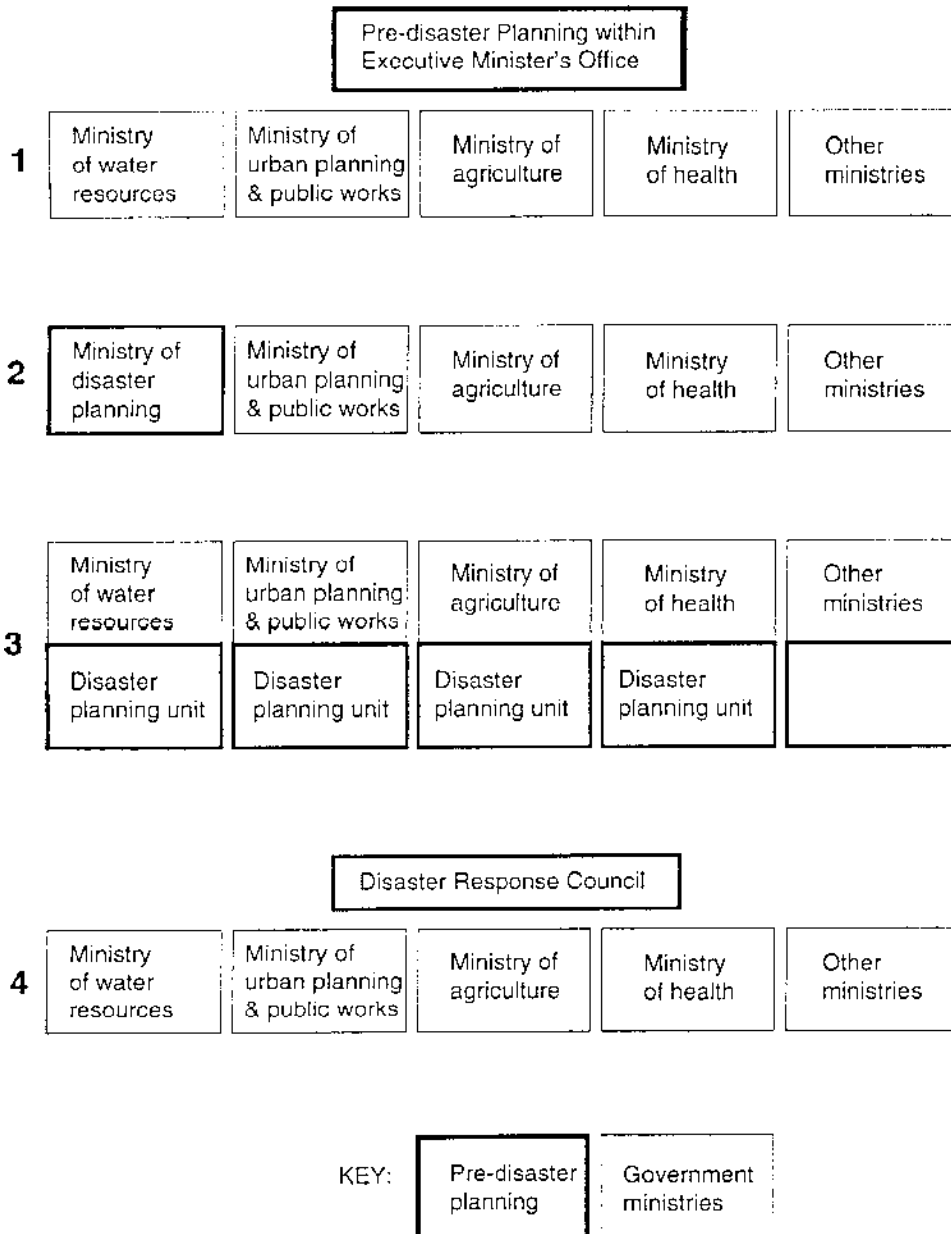


FIGURE 4
Options for integrating disaster preparedness within government structures

In a disaster situation, all responsible officials must have a clear idea of their roles and functions. This is what a disaster plan establishes and what rehearsals test. The effectiveness of implementation can be judged by an inter-ministerial committee and supported by the findings of a secretariat.

It is advisable to have a secretariat to liaise with designated ministries: before implementation of a plan (for information updates, training requirements, and rehearsals); during implementation periods, (for coordinated assessments); and after the first stages of implementation (for second phase programs of recovery and rehabilitation). The roles and resources brought by non-governmental organizations for disaster preparedness, mitigation, prevention and relief purposes should be incorporated into the information required by the inter-ministerial committee on disaster preparedness. The government should also have a mechanism to determine the amount and type of assistance provided by bilateral donors and international agencies.

It is important to bring the planning process to the regional and local levels. This can be accomplished in a variety of ways. Having established a broad framework for the plan, take the plan and relevant officials to the field to work out the most effective ways to implement the proposal. The means of implementation should include attention to resources for preparedness at the family and local levels. The more centralized administrative planning systems should be in support of local efforts, not vice versa.

A national disaster preparedness strategy or plan should allow regional variations to meet the specific conditions of particular areas. This is essential for ensuring that the institutional structure of the plan has the support of regional and local officials. Establish local working groups to review the plans on a periodic basis and be sure that the substance of these reviews is considered. Where relevant, incorporate these reviews into updates of the overall plan. Such working groups are essential when it comes to warning systems, evacuation measures, and health or nutritional assessments.

Be sure that disaster plan rehearsals are not conducted merely at the central level, but that they combine central, regional and local level interaction. Distinguish in the plan the types of disaster responses that do, or do not, require central government approval.

Consider this advice

Some warnings are in order related to appropriate institutional structures for disaster preparedness plans.

The exchange of information must be an active undertaking. Do not wait for another agency to approach the UN DMT secretariat for information. Be sure that there is an established and effective system to disseminate information.

Ensure that agency representatives are briefed regularly on what is happening about the disaster preparedness plan. Encourage relevant agencies to participate in the planning process.

Be sure that any national disaster preparedness plan fully recognizes the particular specializations of relevant UN agencies.

See to it that no decision about such specializations is discussed without a representative of the agency present. If that is impossible, be sure to brief the agency about the discussions that have ensued.

Do not assume that what is written in the plan is what any individual agency might follow. Before any point of implementation, such as conducting joint assessment missions, be sure to double check specific commitments.

See how specific agency interests might be developed within the context of the proposed disaster preparedness plan. Could an international child welfare agency, at its own behest, play a more active part in health preparedness?

ANSWER (from page 54)

See Figure 4 for help in defining the government agency.

Do not assume instant cooperation from non-governmental organizations. There is frequently a degree of wariness that pervades relations between NGOs and government and between NGOs and the UN system. Nevertheless, NGOs can be vital components to a national disaster preparedness plan. Where willing and able, NGOs should be incorporated into the plan.

A few more warnings are in order related to NGOs in disaster preparedness plans.

Avoid dictates. Effective NGOs are normally represented by people with considerable field experience. These people frequently have grass-roots experiences with disaster relief operations. They know their business, so remember that the exchanges are between equals.

Share experiences. See whether there is an NGO forum in which UN activities concerning disaster preparedness might be discussed. Consider holding special workshops on particular technical matters for NGO staff, on topics such as emergency logistics.

Exchange information. One of the standard responses from NGOs when discussing UN information-gathering is that it is a one-way process. The UN gets the information, and the NGO gets nothing in return. Both UN and government workers benefit considerably from certain insights and information provided by NGOs. Therefore, the exchange of information should be more open. The door of the DMT secretariat should be open to NGOs.

Incorporate NGOs in disaster preparedness activities. Governments might agree and even welcome the opportunity to collaborate with NGOs. However, be certain that a government's enthusiasm for incorporating an NGO into a preparedness plan is not a measure to constrain NGO activities. Both the government and NGOs must ensure that their agendas are not compromised.

Advice is also in order related to including bilateral donors in plan implementation.

Be sure that donors are in the know. In the disaster preparedness plan, there will be an officially designated focal point in the government that will monitor the relief contributions coming into the country. However, the information may not get through. In times of emergencies, the UN DMT should meet regularly with donors to be sure they know what is needed, what has arrived and the status of ports, airports and other distribution links.

Conduct disaster preparedness briefings. Even before donors provide assistance, be sure they know the procedures set forth in the disaster preparedness plan on how assessments will be made and how subsequent appeals will be issued. Be sure donors know how relief is to be delivered, according to the disaster preparedness plan.

■ CASESTUDY

Drought Preparedness and Mitigation – The Approach in India in 1987

India is located between Latitudes 3 and 8 degrees N and longitudes 88 and 97 degrees E. The Tropic of Cancer passes through the middle of the country. Sixty eight percent of the country receives precipitation less than 1125 mm per year, which limits agricultural potential even in normal years. Most of the rain (73%) falls in the monsoon season from June to September.

The drought of 1987

Failure of the monsoon brought prolonged dry spells in western India and severely affected agricultural production, causing the fourth serious drought disaster in this century. Crops were damaged in an area of 59 million ha spread over 267 districts and 22 states. Of the 285 million persons affected by the drought, nearly 92 million belonged to vulnerable groups including subsistence farmers and agricultural laborers. The previous worst drought occurred in 1965 when India had to import grain to mitigate the resulting famine.

Organizational response: In mid-July of 1987, when it appeared that drought conditions were likely to have a serious impact on agriculture, the Government of India (Gol) took initiative to mitigate the impacts rather than wait for requests for assistance. A Committee of Secretaries on Drought was set up and an Action Plan was developed. The plan included:

- preparation of water budgets to optimize use of reservoirs and ground water sources
- contingency plans to minimize crop losses
- provision of drinking water to the affected populations
- strengthening the food delivery system
- public health measures including providing supplementary nutrition for the vulnerable children
- contingencies for providing adequate fodder and nutrients for the livestock.

The implementation of the drought relief programs was monitored on almost a daily basis by a Crisis Management Group under the Central Relief Commissioner. State level relief committees directed the implementation of projects and coordinated the appropriate departments.

Agriculture: The following steps were undertaken to improve agricultural prospects in drought affected areas and kept crop losses to a minimum. The 1987 harvest was only 3.5% less than the previous year:

1. A timely supply of wheat seeds was provided to Bihar, Jammu and Kashmir for the Rabi harvest (the winter crop season).
2. Obtaining credit was facilitated through flexible lending by the National bank for Agricultural and Rural Development.
3. The Rural Electrification Corporation connected 150,000 water pumps.
4. Generation of power was improved for local power plants and uninterrupted supply of power was provided to the agricultural sector for 8-10 hours per day. Other fuels were also supplied.
5. Kits for vegetable production were supplied.

Employment Generation: The most immediate impact of the drought was on the incomes of rural families. Providing employment opportunities to these affected persons became a leading priority. Thus, 52% of the drought relief funds went to employment generation, mainly for jobs relating to drought mitigation. Part of the wages were paid in food grains to supplement the diets of families of the workers.

Labor efforts were directed toward construction of ponds, tubewells, field channels and roads as well as soil conservation and water harvesting. To improve future agricultural production, the government launched 54 major irrigation projects in 14 drought affected states to create an additional 133,000 ha of irrigated land.

Information Campaign: A widescale information campaign was undertaken by the various press, information ministries and radio agencies to create public awareness regarding the impact of drought and the relief measures undertaken. Special programs to improve knowledge of drought mitigation were also broadcast. Active steps were taken to enlist volunteers to help with the relief programs. For example, volunteers distributed fodder and drinking water in the affected areas.

CASE STUDY continued

Strengthening institutional mechanisms: Due to the severity of the drought of 1987, the drought affected states had to seek financial assistance from the Gol to cope with the effects. Decisions regarding the use of the money took between 30 and 45 days. Subsequent to the drought, a Calamity Relief Fund (CRF) was established for every state. The States draw on the funds to meet immediate requirements for disaster relief, and rehabilitation and reconstruction following disasters. The un-utilized balance each year is put toward the following year for five years after which the residual funds become available as development resources.

Emerging perspectives

1. The Indian experience bears witness to the effectiveness of formulating development and preparedness policies to meet predictable natural disasters. A comparison of the 1965 and 1987 droughts show that inputs resulting from development in the interim years assisted in avoiding extreme destitution in 1987 that occurred in 1965. This was the case despite the fact that the 1987 drought was more severe and affected twice the number of districts and people. Development inputs included: early warning systems, clear policy frameworks and institutional mechanisms for administering relief programs, an effective food delivery system, community mobilization, innovative measures by field agencies and advancements in agriculture, irrigation and food security.
2. When relief measures are recognized as being inevitable, adequate resources should be programmed at the operational level to assure timely response. With resources now programmed at the state level through the CRF, response should be more rapid and effective.
3. Employment generation in a period of drought is the basic means of providing income and purchasing power to those sections of society which have lost normal means of subsistence. The ever-changing economic milieu of a society, however, complicates the problems of assessment of the employment needs in different areas. Sections of the rural population shift dependence from farm income to other avenues of income due to economic development and perhaps the occurrence of the drought itself. Generation of skills for drought prone populations, through participation in national development activities such as adult literacy and social awareness programs, is needed to assist the vulnerable groups to switch to new occupations as economic development proceeds.
4. The experience of 1987 highlighted the importance of information dissemination relating to drought and relief measures. The public satisfaction with relief measures depends largely on the perception of the responsiveness of the administration both in quality and quantity. Also highlighted were the importance of non-governmental input and use of volunteers for implementing and monitoring relief operations. Mechanisms to facilitate this input should be institutionalized.

Source: B. Narisimhan, *Management of Drought: An Indian Approach in 1987*, Department of Agriculture and Cooperation, Ministry of Agriculture, New Delhi.

■ SUMMARY

When introducing disaster preparedness strategies or plans to government officials it is important to sensitize officials to the virtues of disaster preparedness: that an effective disaster preparedness plan will protect development, introduce disaster mitigation, strengthen local infrastructures and exert pressure on traditional aid donors.

It is important to establish a reliable information base in order to prepare an effective disaster preparedness plan. The following information systems are highly recommended: vulnerability assessments; joint information programs (between UN and government representatives); cross-checking mechanisms in order to sort out conflicting data that may emerge; and joint-assessment processes (with government, UN, NGOs and local networks) in order to reduce duplication of efforts, promote a degree of consensus about damage and needs, and ensure joint endorsement of any aid appeals.

It is also essential to define appropriate institutional structures that will be responsible for plan design, rehearsal, implementation and evaluation. The roles and functions of responsible officials must be identified. Plans to coordinate the efforts of all designated ministries and procedures to include NGOs are needed. Mechanisms to determine the amount and type of assistance to be provided should be established. It is important that regional and local involvement be incorporated into the disaster preparedness planning process at all stages. This requires variations and flexibility in planning strategies in order to meet the specific conditions of particular areas.

Pulling it all together

This module has reviewed the breadth and scope of disaster preparedness. Annex 1 can be used as a tool to not only review the subject but also to help structure what is in a disaster preparedness plan. A useful exercise is to review each item on the checklist to determine if the information exists in your country and where to obtain it. If the information is unavailable or doesn't exist, filling that gap will be an important step in implementing disaster preparedness.

Checklist of basic information required by a UN-DMT¹

This checklist often refers to agency or organizational "contacts." To keep your information current, you should have for all contacts:



- name
- office address and telephone, fax, and telex numbers
- home address and telephone number
- electronic mail address, if the person has one

You should have the same information for any alternates or deputies.



Disaster profile of country

- The history of the incidence and magnitude of particular types of disasters in different areas; their impacts on the population and the economy.
- The types of emergency and post-disaster assistance provided from all sources in the past; the effectiveness of that assistance given the problems faced—the "lessons" learned.
- The kinds of needs which can therefore be anticipated in particular areas and circumstances, and the kinds of assistance interventions which might be required.



National policies, objectives and standards

- Policies with regard to the soliciting, acceptance and use of international assistance, including external personnel.
- The authority delegated to local institutions, and the possible roles of national NGOs and outside assistance agencies.
- Policies (both "whether or not" and "how") regarding vaccinations, prophylactic distribution of drugs, the care of unaccompanied children, and salvaging of materials.
- Policies and criteria for any distribution of relief: whether to be on a free, for-sale or on-credit basis; what, if any, differentiation should be encouraged within and between different population subgroups.
- The particular objectives and standards which should be applied to ration scales for food and water, and any distribution of shelter materials and household supplies.

- Specification of the kinds of food and other commodities which are appropriate and acceptable as donations, and those which are not.
- General specifications for the kind of energy sources normally preferred for vehicles (diesel or petrol) and generators and pumps (diesel or electric).
- General priorities for the restoration of infrastructure and services.
- Policies and arrangements for importing emergency assistance supplies, such as arrangements for waiving fees and taxes or the clearance of special relief flights.



Government structures for warning and emergency response

- The contact responsible for all national hazard forecasting and warning systems.
- The government contact (and deputy) normally responsible for the management of emergency relief and post-disaster assistance operations in a central co-ordination body, if one exists. Contacts in individual ministries.
- The address and telephone/fax/telex numbers of any national disaster co-ordination centre, and whether and how foreign donor officials will have access to the centre during emergencies.
- The procedures established (at national and local levels) for assessing damage, needs and resources following the impact of a disaster.
- The contacts in the national disaster management body or the sectoral ministries responsible for arranging and assuring:
 - Co-ordination and liaison with the international community (UN system, embassies, NGOs)
 - Search and rescue operations
 - Post-disaster surveys and assessments
 - Food supply assistance, where needed
 - Medical and preventive health care
 - Water supplies
 - Environmental sanitation
 - Emergency shelter and other relief supplies
 - Communications
 - Logistic services (transport, storage and handling)
 - Information management (including records and reports)
 - Security
- Role of the national armed forces and the relationship between civil and military authorities in directing operations.

¹Source: UNDP/UNDRO DISASTER MANAGEMENT MANUAL (1 MAY 1991).

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Other external and national assistance organizations

- ☐ The contacts at the principal embassies and donor agencies, the potential contributions of their governments and organizations to post-disaster assistance operations, and the resources they have on immediate call locally.
- ☐ The contacts at the national Red Cross/Red Crescent Society and the principal NGOs, their potential contributions to emergency and post-disaster assistance operations, and the resources (human, material, and financial) they have on immediate call.

Base-line data on each distinct disaster-prone area

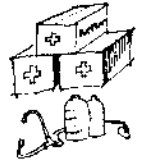
- ☐ Demographic details: the location, size and socio-economic characteristics of communities, including average family size, sources and levels of income, and any traditional patterns of seasonal migration.
- ☐ Formal and informal leadership structures, any particular social or religious considerations, traditional community support processes at times of disaster, and any taboos.
- ☐ General climatic conditions, including day and night temperatures at different times of year.
- ☐ Local food habits, including weaning practices, of the various socio-economic groups.
- ☐ "Normal" nutritional status of children, including any normal seasonal variations.
- ☐ Diseases endemic to the area, including prevailing patterns of mortality and morbidity.
- ☐ Normal sources of water: sources and methods of extraction; treatment; and distribution.
- ☐ Food supply systems and local production: types, seasonal production cycles and normal yields of both major crops and small gardens, and average on-farm stock retention levels.
- ☐ Services operating (official and non-official): health, education, rural development, public works, and social welfare. This should include the location and specific nature of the services provided and the personnel employed.
- ☐ Coverage and general condition of the infrastructure, including roads, telecommunications, and electricity supplies.

Resources: material and human

"Resources" include supplies and services which can be mobilized in-country for emergency and post-disaster assistance operations. Potential sources include government bodies, commercial companies (locally or in a neighbouring country), NGOs and other aid organizations and development projects operating in or near the areas at risk.

Medical/health care²

- ☐ Hospitals, clinics and other health facilities: number of beds, ambulances, availability of special equipment, number of trained doctors, nurses and nurses' aides; contacts at all facilities.
- ☐ Stocks and sources of medical supplies: names, addresses, and telephone/fax/telex numbers of all medical supply stores; manufacturers of pharmaceuticals and supplies; and laboratories producing vaccines and serums.

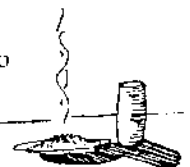


Food supplies

- ☐ Location, capacities, and normal stock levels of food stores; telephone/fax/telex numbers of government marketing boards, food supply departments, commercial importers, food wholesalers, and food aid donors.
- ☐ Details of existing food rationing and distribution programmes (including food-for-work), their organizational arrangements, procedures, and capacity to meet emergency needs.

Nutrition and epidemiology³

- ☐ Nature, location, and capacity of any nutritional rehabilitation (therapeutic feeding) activities; their organizational arrangements, procedures and capacity to meet emergency needs.
- ☐ Extent and validity of any nutritional status surveys or surveillance programmes; in-country sources of nutritional expertise (with relevant field experience).
- ☐ Location and capacity of epidemiological surveillance and survey expertise linked to communicable disease control programmes.



² This information should be assured by WHO staff in the context of the preparedness profiles issued by WHO headquarters.

³ Nutrition aspects may not be a priority concern in the immediate aftermath of a sudden natural disaster, but are crucial in all emergency situations of extended duration, especially droughts, famines, and in all cases involving population displacements.



Water supplies, hygiene and environmental sanitation



- Names, addresses, telephone/telex numbers of producers, large wholesalers, and retail outlets for the following types of supplies, including location and usual stock levels on inventory:
 - Water pumps, tanks, pipes and fittings
 - Road tankers for hire or purchase
 - Lime or other chemicals for water disinfection
 - Hard bar soap, detergents, and disinfectants
 - Materials for establishing temporary latrines
 - Supplies and equipment for vector control operations
- The quantities of these supplies normally available in government stocks in specified locations.
- The availability of mobile water treatment units and generators through the military or major contractors.
- Sources of trained personnel and tools to undertake rapid repairs or to construct new or temporary installations.

Emergency shelter and relief materials

- Names, addresses, telephone/telex numbers of producers, large wholesalers, and retail outlets for the following types of supplies, including location and usual stock levels on inventory:
 - Heavy-duty tents, tarpaulins, thick polythene sheeting
 - Corrugated roofing sheets, lumber, cement
 - Blankets
 - Cooking pots and utensils (household size, and institutional size for communal kitchens)
- The quantities of these supplies normally available in government stocks in specified locations.

Construction equipment

- Names, addresses, telephone/telex numbers of road and building contractors, including their approximate availabilities of bulldozers, drag-lines, hoists, cranes, hydraulic jacks, mobile generators, and pumps.
- Contact points of government sources for the same types of equipment, for example, within the Ministry of Public Works or Defense.

Communications

- Contacts within the responsible authorities for establishing telecommunications services, including the repair of normal systems and the installation of temporary radio networks, where needed.
- Policies concerning the use of communications equipment by international teams and aid organizations.

Logistic systems and facilities

Logistics considerations include details of normal transport routes and capacities to and within the disaster-prone areas, and knowledge of the specific logistical problems likely to be faced moving supplies following a disaster.

- Roads
 - Have copies of the best available maps.
 - Identify essential road links and best alternative routes.
 - Mark potential constraints on truck traffic (such as bridge load capacities and ferry movement capacities), and any points vulnerable to occurrences such as flooding or landslides.
- Trucking capacity
 - Government fleets: the number and condition of trucks of specified types and capacities in different departments and locations which might be available to transport relief supplies.
 - Commercial capacity: the contacts at private transport contractors able to operate to or within the areas concerned, including details of their fleets, the locations of their offices and maintenance facilities, and normal rates.



- Railways
 - Track gauges, wagon capacities, and any loading constraints on various lines.
 - Daily movement capacities on various lines, and the numbers of locomotives and wagons which might be available during each season.
 - Reliability and operational constraints, including any feasible measures to improve performance.
- Sea and river ports
 - Harbour depths, quay lengths, cargo handling equipment.
 - Daily discharge capacity, and seasonal patterns of exports and imports.
 - Size of covered and open storage areas, and amount normally available at different seasons.
 - Normal offtake capacities: road and rail.

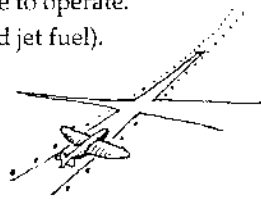
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Coastal and river craft

- Government craft: the numbers and condition of boats, tugs and barges (of specified types and capacities) in different locations which might be available for rescue operations or to transport relief supplies.
- Commercial capacity: contacts within private shipping contractors able to operate to or within the areas concerned, including details of their fleets and normal rates.

Airports and air-strips

- The precise locations and the length, width, surface and load classification of runways in the affected areas.
 - Largest type of aircraft able to operate.
 - Fuel availability (avgas and jet fuel).
 - Navigation and landing aids, and hours open for flying.
- Cargo handling equipment and storage capacity.

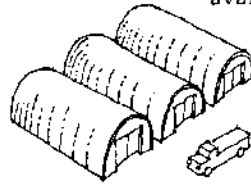


Aircraft and air transport

- Government: number and types of aircraft and helicopters likely to be available to transport personnel and relief supplies; the approximate costs of operation of military and other government aircraft and helicopters.
- National airline and other companies: number and types of aircraft and helicopters likely to be available to transport personnel and relief supplies; approximate charter costs.

Storage and handling

- Government warehouses: the location, size, and type of stores in different areas which might be available for relief supplies; the general condition of the stores, level of security, access to road and rail transport, the availability of pallets, hand trucks, and forklifts, and the adequacy of staff and record systems.
- Private warehouses: as above for stores which might be requisitioned or rented.



Fuel supplies (diesel and petrol)

- The locations, capacities, and normal stock levels of government and commercial fuel storage depots; the arrangements by which fuel can be drawn or delivered from those depots.



■ *ANNEX2*

ACRONYMS

DHA	Department of Humanitarian Affairs
DMTP	Disaster Management Training Programme
FAO	Food and Agriculture Organization
NGO	Non-Governmental Organization
UNDP	United Nations Development Programme
UN-DMT	United Nations Disaster Management Team
UNDRO	United Nations Disaster Relief Organization (now DHA-Geneva)
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund
WFP	World Food Programme
WHO	World Health Organization

■ ANNEX 3

ADDITIONAL READINGS

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