2 nd. Edition

Disaster Assessment

Disaster Management Training Programme

Disaster Assessment

2nd Edition

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DHA

Disaster Management Training Programme 1994

This training module has been funded by the United Nations Development Programme in collaboration with the Office of the United Nations Disaster Relief Coordinator for the Disaster Management Training Programme (DMTP) in association with the University of Wisconsin Disaster Management Center.

Parts of this module include material from draft texts of internal UNDP / UNDRO assessment guidelines. The module also draws directly on assessment guidelines developed for OFDA and UNICEF. The concepts in this module owe much to the work of Fred Cuny, Mishael Lechat, Claude de Ville de Goyet, Randolph Kent, Franklin MacDonald, Ron Ockwell, John Seaman, Giles Whitcomb, and staff members of UNDRO.

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Cover Photo: Polish helicopter used for reconnaissance flights to identify suitable zones for air drops in Ethiopia. Photo by:RRC/Ethiopia

CONTENTS

United Nations reorganization and the Disaster Management Training Programme

Since this module was written, there have been reorganization 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 and scope

This training module, Disaster Assessment, is designed to introduce this aspect of disaster management to an audience of UN organization professionals who form disaster management teams, as well as to government counterpart agencies, NGOs and donors. This training 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 the *UNDP/UNDRO Disaster Management Manual* 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.

Overview of this module

Disaster assessment is the gathering and analysis of information pertinent to disasters and disaster response. The scope of the information required covers factual details of the hazard event causing the disaster, the needs of those affected, and the available resources for responding to those needs.

The assessment process extends from preparedness activities and the pre-disaster warning phase through the emergency phase and even into the rehabilitation and recovery of the community. As the needs of the community change through these phases, the objectives of the ongoing assessment change as well.

Part One of this module clarifies the assessment process and charts the changing objectives of assessment through the various phases of a disaster and relates these assessment activities to the decision making process.

Part Two provides practical guidelines for the collection of accurate and usable data during the various phases of a disaster and gives specific insights to the differing assessment needs required by different disaster types.

Part Three of the module addresses the role of the UN in disaster assessment.

Part Four discusses the preparedness planning measures which must be in place prior to a disaster to facilitate rapid and accurate assessment when required.

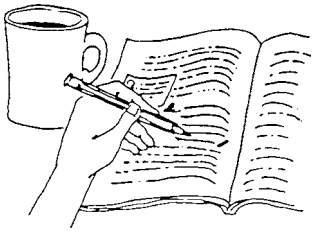
Training methods

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 workshops 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.



PART 1

AN OVERVIEW OF DISASTER ASSESSMENT

This part of the module is designed to enhance your understanding of:

- *the role of assessment in disaster management*
- *the steps in the assessment process*
- *how the objectives of assessment evolve over the course of the recovery from a disaster*
- *different data collection methodologies suitable for assessment*

An overview of disaster assessment

Assessment is the process of determining:

- the impact which a hazard has had on a society
- the needs and priorities for immediate emergency measures to save and sustain the lives of survivors
- the resources available
- the possibilities for facilitating and expediting longer-term recovery and development

Assessment is a crucial management task which contributes directly to effective decision-making, planning and control of the organized response.

Assessment of needs and resources is required in all types of disasters, whatever the cause and whatever the speed of onset. Assessment will be needed during all the identifiable **phases** of a disaster, (see fig.1),from the start of emergency life-saving, through the period of stabilization and rehabilitation and into the long-term recovery, reconstruction and return to normalcy. The focus of assessment and the strategies for data collection and interpretation will need to change as the response evolves.

EPISODES AND ACTIVITIES IN RELATION TO THE RISKS AND OCCURENCE OF SUDDEN DISASTERS

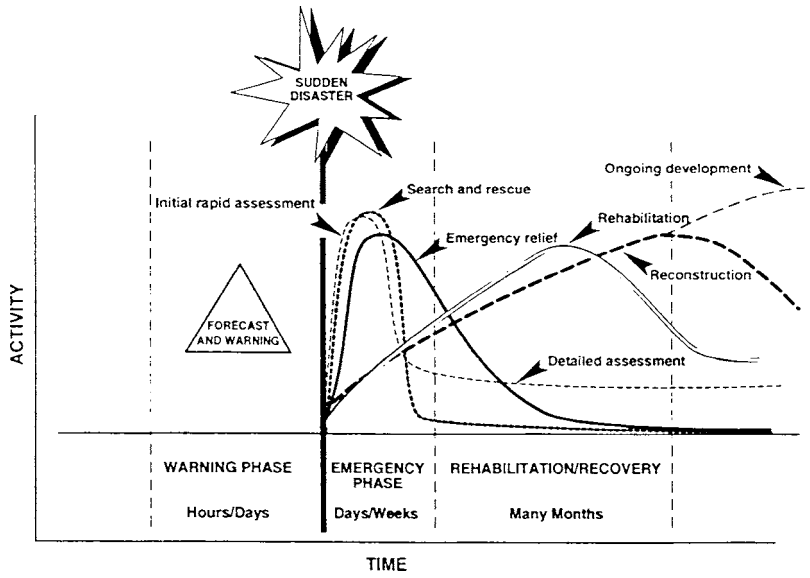


FIGURE 1

Figure 2 identifies how the objectives of assessment evolve as the recovery process proceeds.

FIGURE 2

EVOLVING OBJECTIVES OF ASSESSMENT

Warning Phase

- Determine extent to which affected populations are taking measures to protect lives and facilities from expected hazard impact
- Activate arrangements in the preparedness plan regarding the implementation of assessment

Emergency Phase

- Confirm the reported emergency and estimate the overall magnitude of the damage
- Identify, characterize and quantify "populations at risk" in the disaster
- Help to define and prioritize the actions and resources needed to reduce immediate risks
- Identify local response capacity, including organizational, medical and logistic resources
- Help anticipate future serious problems
- Help manage and control the immediate response

Rehabilitation Phase

- Identify the priorities of the affected people
- Identify the policies of the government with regard to post-disaster assistance
- Estimate the additional support required from national and international sources for relief and recovery
- Monitor the outcome and effectiveness of continuing relief and rehabilitation measures

Recovery Phase

- Determine the damage to economically significant resources and its implications for development policy
- Assess the impact of the disaster on current development programs
- Identify new development opportunities created by the disaster

In introducing this subject, it is useful to distinguish between the terms **"data"** and **"information"**: data are simply units of information including perceptions, numbers, observations, facts or figures. It is frequently said that we live in a time of too much data and that we are often in a data "overload" situation. Data sometimes conflict with one another, for example, when two individuals report widely differing perceptions of the same event.

DATA

Information, on the other hand, is "useful data". Data become information when they are meaningful, relevant and understandable to particular people at particular times and places, for particular purposes. What is information to one person may simply be useless data to another. A major challenge in assessment is to sort out useless, irrelevant and contradictory data to make sure that analysis is done based on the best possible information.

The term **"indicator"** is widely used in assessment. An indicator is a small set of data, which is usually easy or cost-effective to collect, highly correlated with other data and from which much useful and trustworthy conclusions can be derived quickly.

INFORMATION

Assessments must be carefully planned and managed. A sequence of activities is involved and each must be planned in detail. The following activities typically constitute the assessment process:

- Identify information needs and sources of reliable data
- Collect data
- Analyze and interpret data
- Report conclusions, forecast and alternatives to appropriate planners and decision-makers

THE ASSESSMENT PROCESS

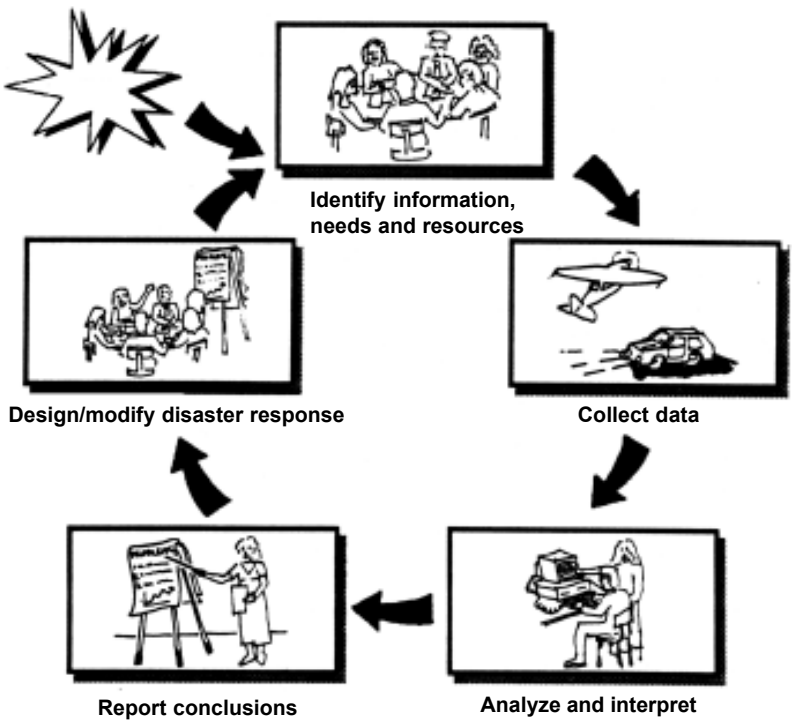


FIGURE 3

As the response actions begin to influence events, assessments become part of the monitoring and control loop, allowing those involved to monitor outcomes and attempt to correct the response. It becomes part of a continuing process of **assessment, review** and **correction** by which those managing the operation begin to restore the framework for survival and recovery.

Q. *What are the main purposes for disaster assessment?*

A. _____

Assessment is the process by which decision-makers begin to bring order to the chaos that results from a disaster.

Assessment as an aid to decision-making

Assessment is the process by which decision-makers begin to bring order to the chaos that results from a disaster. Assessment activities provide data to emergency decision-makers and those involved in longer-term recovery planning. It is done for a specific user or group of users who must decide how best to allocate available and pledged resources for relief and recovery.

The decision-making context varies greatly depending on the country involved, the disaster type and the phase of the emergency. Nonetheless, at least two aspects of the context, i.e. the cast of characters and the decision making scenario, are always present.

Relief actors

There is always a cluster of relief ”actors”. They include:

- The survivors
- The government of the affected country-its ministries, agencies, political figures and civil servants
- The United Nations agencies-including national and international headquarters offices
- Inter-governmental organizations
- Donor governments and their local representatives
- International and national NGO representatives
- The national and international news media

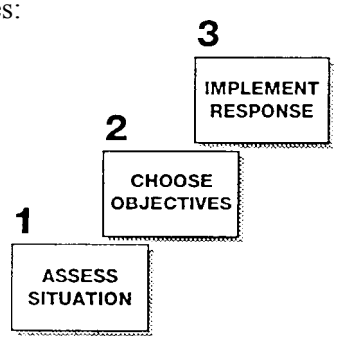
Each of these will have different perceptions of the disaster and their role in the recovery effort. Each will have different information needs and will seek to meet these needs in different ways. Information that is meaningful and useful to one group may be wholly irrelevant to another. Many agencies will have a limited understanding of other group's requirements and resources.

Increasingly, those participating in important decisions may not even be present within the country. With the emergence of sophisticated telecommunications, officials at centers thousands of miles from the affected area can be drawn quickly into the decision-process and can share much of the data that are available to national officials. With rapidly growing satellite coverage, relief actors are also now exposed to extensive live news coverage by highly mobile television crews from the international TV networks.

A good system should pay particular attention to the emerging expressed priorities of the affected people themselves and identify the resources of the survivors and their coping levels.

Decision-making scenario

From the start of the emergency onwards, all the actors will be jointly or separately involved in a decision-making process which includes three stages:



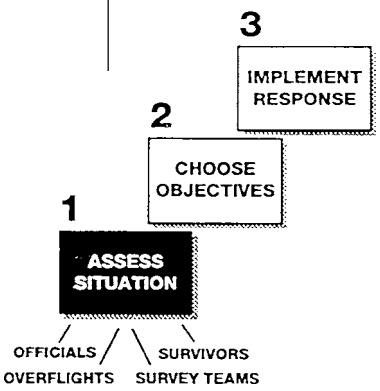
Phase 1 – situation assessment
Phase 2 – choosing objectives and identifying alternative means of accomplishing them
Phase 3 – developing and implementing response plans

This process will be most intense and explicit during the emergency phase, but will continue in some form through all the phases of the recovery process.

Situation assessment

Early in all emergencies, but especially in rapid onset disasters or sudden population influxes as a result of civil-conflict, there will be great uncertainty about what the problems actually are. These uncertainties include: the area affected, the numbers of people requiring immediate help, the levels of damage to services and "life-lines", the level of continuing or emerging threat and the possibilities for providing help.

In all kinds of emergencies decision-makers will need to start by building up a picture of where people are, what condition they are in, what their needs are, what services are still available and what resources have survived. A good system should pay particular attention to the emerging expressed priorities of the affected people themselves and identify the resources of the survivors an their coping levels. This overall picture is built up from assessment data **collected by officials** within the area, from **survey** teams on the ground, or from overflights. To a great extent, the quality and quantity of that data will reflect the level of **prior planning.**

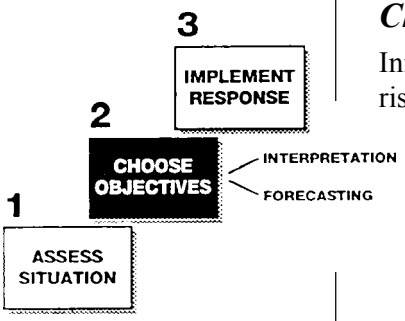


ANSWER (from page 12)

The main purposes of disaster assessment are: to determine the impact a hazard has had on society; determine the needs and priorities for assistance; identify resources available; identify development opportunities; monitor recovery process.

Receipt and handling of data involves three distinct steps:

- Assessing the likely value of the data: the reliability of the source and the likely accuracy of data
- Validating incoming data against "knowns" – a validation check against existing baseline information
- Incorporating data into a structured "picture" of the situation, which can be displayed graphically, or otherwise reported to those who will try to make sense of it



Choosing objectives and identifying intervention alternatives

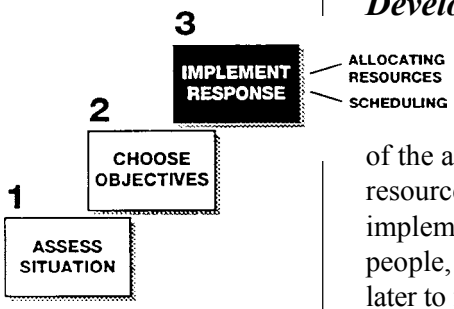
Initially, this stage requires **interpretation** of the data which highlights the risks to various populations, together with an attempt to define alternative means to reduce immediate risks. A detailed understanding of the general risk pattern in the particular type of emergency and how it may change is essential. Some general risks frequently present in the emergency phase are:

- Continuing presence of hazard agents – secondary flooding, fire, landslides, extreme cold, chemical pollution, etc.
- Loss of "lifeline services" – clean water, waste disposal, medical treatment
- Inadequate supply of emergency clinical medical services Inadequate supply of essential foods
- Effects of severe climatic conditions exacerbated by lack of shelter, warm clothing or heating fuel

Given adequate information, central decision-makers will also be able to gauge local response capacity (including government, other groups and the affected population) and decide how best to use those existing resources over which they have some control for immediate relief.

A second important element of this stage of decision-making is **forecasting** – the attempt to develop a set of predictions of the relationship between needs and resources over time and, in particular, an attempt to judge whether resources can actually be made available in time to deal with particular problems before their importance fades Forecasting is particularly critical early on, when the pattern of need is changing very quickly.
For example, decisions on emergency medical care and search and rescue during earthquakes are so time-sensitive that even a few hours delay in the organization of support for a local response can lead to an almost total waste of resources.

Developing and implementing response plans



In the early phases of a disaster, assessment activities give decision-makers the information needed to set the objectives and policies for emergency assistance, to take account of the priorities of the affected people themselves and to decide how best to use the existing resources for relief and recovery. The third stage – response planning and implementation – involves allocating and scheduling resources including people, equipment and supplies, first to meet specific relief objectives and later to fulfill recovery and development goals. During this stage, assessment provides information on the progress of the recovery highlighting areas requiring further analysis and intervention.

Q. *How do the various "relief actors" contribute to the complexity of the disaster decision-making context?*

A. _____

_____

_____

_____

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Cultural attitudes and personal preferences can greatly influence the type of data that an individual or a team will tend to focus on.

Collecting assessment data in disasters

Data are collected for a purpose: to improve emergency decisions and to provide more effective planning of relief and recovery. Data collection is ongoing. Bad or out of date data can lead to erroneous conclusions and wasted time and resources. Information must be found when it is needed. To achieve this, the frequency of data collection and reporting must match the rate of change in the situation being assessed.

A useful starting point in any data collection exercise is to seek advice from survey specialists, statisticians and epidemiologists at the planning stage. Proper design of sampling and survey methods can substantially increase the accuracy and usefulness of assessment data. Also, cultural attitudes and personal preferences can greatly influence the type of data that an individual or team will tend to focus on.

Consideration of local cultural and other social factors at this stage can help greatly in formulating interview methods and identifying useful sources of information and, also, in predicting how the people associated with the system are likely to behave.

There are a range of data collection methods, some of which are most useful during the emergency phase and others which depend on the development of more organized assessment procedures. A few can be applied effectively during all phases of a disaster and its aftermath.

The frequency of data collection and reporting must match the rate of change in the situation being assessed.

All data collection strategies are subject to problems of bias. Bias is the degree to which the conclusion drawn from a data observation deviates from the true situation. Sometimes bias results from asking the wrong question, sometimes from asking the wrong people and, sometimes, from the "biased" perception of the observer or reporter of data.

Bias is the degree to which the conclusion drawn from data observation deviates from the true situation.

The following list outlines some of the more common ways of collecting assessment data in relation to the various phases of the disaster. (Excellent manuals on conducting detailed assessments have been prepared by the Pan American Health Organization (PAHO) and the US AID-Office of Foreign Disaster Assistance (OFDA) and are recommended to the reader.)

Answer (from page 15)

There are many "relief actors"; each has their own assessment needs and sources of information; actors frequently are not aware of the data sources and needs of others.

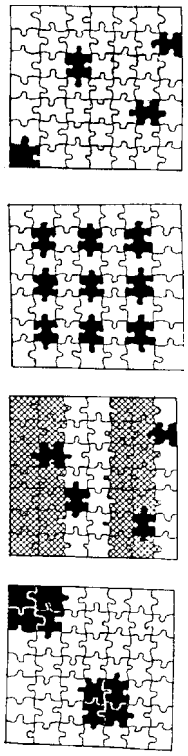
Impact and emergency phase

Automatic early self-assessment and local assessment by key elements in the system, e.g. staff of "lifeline" systems. This can involve pre-planned damage reporting by civil authorities and by military units in accordance with operational procedures established in the disaster preparedness plan.
Visual inspection and interviews by specialists. Methods can include overflight, actions by special point-assessment teams including visits anticipated in the disaster preparedness plan and sample surveys to achieve rapid appraisal of area damage.

Emergency phase onwards

"Sentinel" surveillance. This is a method used widely in emergency health monitoring, where professional staff establish a reporting system which detects early signs of particular problems at specific sites. The method can be applied to a variety of other problems where early warning is particularly important.

Surveying of specific characteristics of affected populations by specialist teams. Well-designed surveys drawn from reliable and systematic samples have a number of advantages, especially the relative confidence that may be attached to data collected using formal statistical sampling methods. Sampling allows researchers to survey a subset of an affected population and confidently generalize to the larger population from which the sample was drawn. There are several different types of sampling methods useful for conducting assessments:



Simple random sampling: one in which every member of the target population is equally likely to be selected and where the selection of a particular member of the target population has no effect on the other selections.

Systematic random sampling: choosing, for example, every fifth, or tenth member on a numbered list. This may be wildly inaccurate if the lists are incomplete or structured in non-random ways.

Stratified random sampling: divide the population into categories (or strata); then select members from each category by simple or systematic random sampling; finally combine these to give an overall sample.

Cluster sampling: this restricts the sample to a limited number of geographical areas, known as "clusters"; for each of the geographical areas chosen, select a sample by simple or random sampling; then combine these sub-samples to get an overall sample.

Note: *Decision makers should be aware of sampling error and its implications. Ensure that reporting procedures are designed to adequately convey estimates of accuracy and uncertainty.*

Detailed critical sector assessments by specialist staff. This involves technical inspections and assessments by experts. It is required in sectors such as water supply, electric power and other "lifeline" systems. Critical sector assessments may be compiled from reports by specialist staff of these systems or by visit by specialist teams from outside.

Interviews with key informants in government and NGOs and within particular groups of affected people: local officials, local community leaders and, especially in food and displacement emergencies, with leaders of groups of displaced people.

Continuing surveillance by regular "polling" visits. This again is a technique which is well-developed in epidemiological surveillance of casualty care requirements and emergent health problems.

Rehabilitation phase onwards

Continuing surveillance by routine reporting. As the situation develops, it will be especially useful if routine reporting systems can be adapted to develop a comprehensive picture of events.

It is worth noting some special features of health surveillance. A major principle of health operations is to monitor continuously for the emergence of particular problems and then to focus precise interventions against demonstrated causes of these problems. A major component is reporting by medical staff (even in the first hours of sudden emergencies) through an established system, with simple procedures and an emphasis on easily detected diagnostic indicators of important problems This is combined with regular "polling" visits and detailed local investigation of reports by specialist professional staff.

Monitoring the quality of assessment data

Estimating accuracy depends on an understanding of data gathering methodologies and their limitations.

A both collectors and reviewers of assessment information, UN staff need to have a clear set of standards for judging data collection systems and their products. At the preparedness stage, they may be in a position to offer useful advice and support to host government authorities in the design and implementation of data-collection and processing systems. During an emergency, they will be called upon to evaluate the accuracy and usefulness of data from official sources in-country. Estimating accuracy depends on an understanding of data gathering methodologies and their limitations and a clear appreciation of how accuracy can be lost during transmission and processing. Estimating the usefulness of data requires an understanding of the ways in which patterns of risk and the corresponding relief priorities differ from place to place and how these risks change over time in different kinds of emergencies. It also requires an understanding of donor capabilities and the ways in which donors act upon incoming information.

Established NGOs (national and international) with development programs in the affected areas can often give valuable information on local situations even if they do not have nation-wide information. Churches and their missions often have extensive long-term local experience. While these sources of information often prove reliable, the limitations of many NGOs must also be recognized. The operations and knowledge of NGOs are highly localized geographically; some have limited numbers of personnel with

Under some conditions, the UN may need to confirm or augment data from government or other sources by rapid, focused assessments by its own staff.

varying degrees of competence. Not all have systematic and institutionalized data-gathering networks. The information provided is likely to be variable in quality and precision and should be evaluated in terms of the experience and proven competence of the organization and individuals concerned.

Under some conditions, the UN may need to confirm or augment data from government or other sources by rapid, focused assessments by its own staff. Donors and key national decision-makers should be consulted immediately when a separate UN assessment is being proposed. Sections below detail the general approach to scheduling and prioritizing such assessments.

Q. Choose two types of data collection methods that are appropriate for disaster scenarios you might encounter. For each method indicate (1) what information this particular method is especially suited to uncover and (2) what the strengths, limitations and biases of each method are for the scenario you have chosen.

A. _____

CASE STUDY

Famine Early Warning and Relief: Use of Anthropometric Surveillance in Ethiopia

A study conducted by Save the Children Fund of the UK has produced important findings for drought and famine preparedness and assessment. The study argues that in the case of Wollo region of Ethiopia, where two major droughts have occurred in the last decade, anthropometric surveillance was a cost-effective means of improving early warning, planning , targeting and monitoring. The analysis of data obtained by the Nutrition Field Worker/Nutritional Surveillance program (NFW/NSP) suggested that the mean weight for length (WFL) of children under five was a valid indicator of access to food and responded earlier than other widely used indicators, such as livestock market trends, migration or mortality.

In Wollo, failure of the long rains in mid-1987 was followed by a period of acute food shortage through mid- 1988. In September of 1987 when it became clear that half of the major crop would be lost, NGO and government agencies began to document the changes in various indicators in order to program relief assistance. The relief branch of the Ethiopian government, the Relief and Rehabilitation Commission (RRC) routinely collected and published information on rainfall, crop yields, market prices and calculated needs for relief food based on grain stores, livestock wealth and unusual population migrations. High estimates of need projected by the RRC were met with scepticism by some international agencies. When the short rain harvest in early 1988 proved to be only 50% of expected, the food deficit estimates rose even higher.

An analysis showed that indicators such as crop yields, market trends, livestock sales, WFL, and migration, when taken alone, were not sufficient to show the conditions that really existed in the various awrajas (administrative districts). Each indicator was capable of only reflecting part, but not all, of the overall food security picture and did not account for local differences in coping capacity. Given the complexities, including the effects of civil conflict on the area, donors seemed to be waiting for more information before committing resources. As a result, many awarajas did not receive relief food early enough to avoid pronounced signs of food stress in late 1987. In the beginning of 1988, it became clear that WFL was declining unusually rapidly and these statistics independently helped to validate other early warning information, thus improving donor and NGO response.

Relative to the cost of providing Wollo with 50,000MT of relief food per year (averaging drought and normal years), the data collected by NFW/NSP, including market and other socio-economic data, cost less than 1.5%. The anthropometric surveillance itself adds less than 1% to the cost and can be justified as long as the information it produces improves the effectiveness of the relief operations by even a few percent. Furthermore, the benefits of NFW/NSP or similar programs are likely to increase over time by developing a data base and a deeper understanding of rural cultures and economies. Information obtained can be used to target assistance and to monitor the effects of the aid provided.

From: *Kelly, Marion, "Operational Value of Anthropometric Surveillance in Famine Early Warning and Relief: Region, Ethiopia, 1987-88", in Disasters, Volume 17, no. 1, p 48-55, March 1993.*

NOTES

PART 2

PRACTICAL INSIGHTS ON CONDUCTING ASSESSMENTS

This part of the module is designed to:

- *Increase your knowledge of general factors contributing to successful assessments*
- *Improve your ability to conduct detailed assessments in sudden onset disasters*
- *Increase your awareness of important aspects of slow onset disasters that affect the assessment process*

General guidelines on factors contributing to success in disaster assessments

A substantial body of knowledge has been developed over the last decade which provides guidance on the design and implementation of assessment systems in the aftermath of a disaster. The following general guidelines have been abstracted from those sources as well as the experiences of the author and UN agency officials.

Planning and systems design guidelines

1. Assessments are generally useful only if there is a system available to record and collate the data and to assess and disseminate its implications. A pre-established assessment plan is crucial. It should specify who gathers what data, where and when, who reports what to whom, how the data can be analyzed, how it can be presented, how assessments are disseminated and how the results are recorded.
2. The analyses of assessment data must take account of changes in needs and changes in resource availability over time. It is crucial to identify the likely needs at the time when resources will be available.
3. Planners need to pay close attention to the users of assessment information. Data should be collected to meet specific requirements by a specific, identified operational individual or unit. Assessments must teach them in a format they can use (which takes account of the information load at the time of arrival) and at a time when it is relevant.
4. The government should designate a person who ensures coordinated collection and analysis of assessment data.

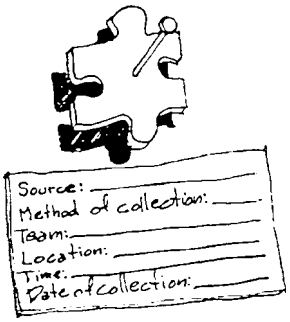
Specificity is an important objective

5. The qualifications of people chosen to do assessments-their skills and demonstrated capability to do the job are very important. This is especially vital where technical teams are chosen to assess "life-line" systems serving very large populations.
6. ***Specificity*** in data collection is an important objective. Assessments should be aimed to help match limited available resources to projected **critical** needs.
7. An important element of emergency assessment is the presence of background quality control checks on emergency plans and procedures and, when an emergency occurs, rapid quality checks on the collection, evaluation and dissemination of data.
8. Disaster survivors must be consulted and community social structures and coping mechanisms must be reviewed to assess a community's own response to the disaster. External resources should not supplant the community's own efforts but, rather, build on them.

External resources should not supplant the community's own efforts but, rather, build on them.

Operational data collection:

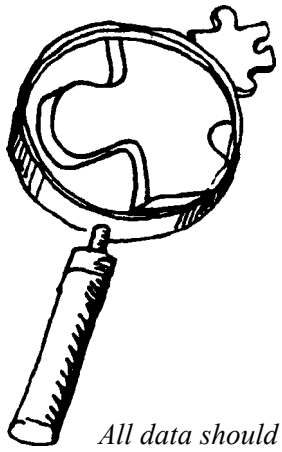
1. As a general rule, focus data collection on the most important areas of risk to the largest populations.
2. Assessment guidelines should be standardized wherever possible.
3. The barriers to access by assessment teams need to be identified early as well as means to get around them. This can help in assigning priorities for access to high value transport resources (for example aircraft or helicopters) and in scheduling these resources.
4. Existing information collection and reporting systems should be used as much as possible-especially the health reporting system.
5. A mix of specialists with appropriate skills and experience must be chosen. Multi-disciplinary teams often see more. It is often useful to assign an epidemiologist or survey statistician on each local assessment team from the outset.
6. Formal sampling and survey methods should be used whenever possible.
7. The source and method of collection, the team and the location, time and date-of-collection of all data should always be specified.
8. Data should be presented in the formrates and percentages-not just absolute numbers.
9. Data recording and presentation techniques should be standardized where possible.



Always specify how data were collected.

Routing, analyzing and reporting assessment data:

1. The communications system which survives the disaster will determine who actually gets what information. Pay particular attention in contingency plans to the ways in which assessment data will be routed back to the assessment center and how to act quickly to improve communications where appropriate.
2. Incoming assessment data need to be structured to help with the following:
   a) Recognition of situations where decisions are required
   b) Formulation of the decision problem, in terms of the needs and objectives and identification of potential alternatives for action
   c) Analysis of the alternatives in terms of their likely impacts
   d) Evaluation and selection of a response, by comparing the alternatives in terms off their predicted outcome
3. All data arriving at an assessment center should be evaluated. In particular, stress the following procedures to staff of these centers and all other decision-makers:
   a) Cross-check and compare reports from different sources
   b) Avoid generalizing from data relating too only one area, one sector or one part of a population
   c) Evaluate assessment data against a baseline, where possible. Recognize that there will be underlying "normal" rates of specific problems which may continue throughout the emergency.
   d) Remind analysts and decision makers that assessments may uncover and highlight problems that were already there, as well as those generated by the disaster
   e) Question and check information that seems unreasonable
   f) Seek information actively. Always check why no report has been received. Don't assume that no report means no problem
   g) Update information continuously as needs and priorities change. Periodically reassess conditions in apparently stable areas.
4. During planning for assessment and reporting, establish desirable standards for emergency services-water supply, emergency medical care and other relief services. Situation assessments and reports can compare current conditions against these standards.
5. Information should still be relevant by the time it is processed and disseminated. This, in turn, means that the systems for collecting and communicating data must operate in real-time, i.e. while the need for decisions still exists and that the evaluation of the data must be done while the results are still likely to be meaningful.



All data should be evaluated.

Collecting data for future operations:

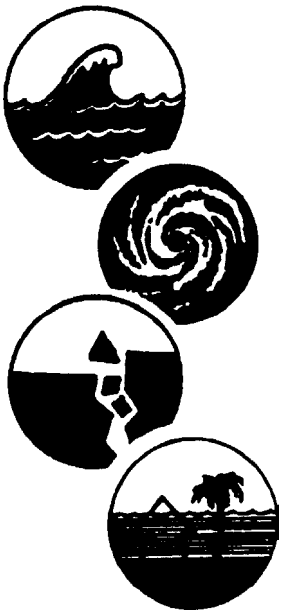
Some assessment data may be of more value after the emergency than during it.

Some assessment data may be of more value after the emergency that during it. This is particulary the case for data on mortality rates and associated risk factors. This information has much less immediate operational value than data on injury patterns and health problems but may be invaluable later to shape future strategies for mitigation and preparedness. Ensure that data of this type is not lost and that its collection receives adequate support.

In sudden-impact disasters the key to effective life-saving relief is specific, precisely targeted interventions against demonstrated causes of death.

Q. What are some common problems with data collection systems for assessments?

A. _____



Practical guidelines on assessment in sudden onset emergencies

In addition to the general guidelines described above, the unique attributes of specific types of hazards have significant implications for the assessment activities.

In **sudden-impact disasters** the key to effective life-saving relief is **specific, precisely targeted interventions against demonstrated causes of death**. There is sufficient scientific experience form previous emergencies to give a good indication of who is most likely to die, of what cause and when. It is clear that most of the effective interventions are **time-critical** and, hence, rely greatly on resources already present in the area and that most can be pre-planned. There will be insufficient time for extensive or detailed assessment and the organization of large-scale external support. In earthquakes, in particular, search and rescue and early emergency medical care must rely substantially on local resources. To give any useful benefit, external help must involve delivery of very specific packages of aid to reinforce existing activity. The first external assessment teams should deliver additional emergency stocks of critical items. These may include hand-tools and gloves for local people engaged in search and rescue and specific medical support for local hospitals and clinics. Accurate and credible information telling

decision-makers what is **not** needed can help to reduce the overall complexity of the logistical response, by excluding at least some useless materials from the impact area.

There are three general priorities for early assessments:

- Determine location of problems
- Determine the magnitude of problems
- Determine the immediate priorities

When focussing on these priorities, it is important to have a systematic approach-assessments should be programmed to ensure that all sectors and all likely affected areas are covered. Sectors may include:

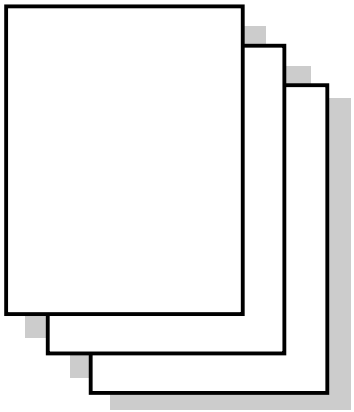
- Emergency medical and health
- Search and rescue
- Damages to lifelines and critical facilities
- Shelter and housing needs
- Personal and household needs
- Agricultural needs
- Economic needs

Coordination is complicated by the need to ensure that the relationships among these sectors are identified. Activities in one sector (health for example) will be affected substantially by damage in another (to water supply, electric power or communications). At every stage, assessments will have to be multi-sectoral in the sense that these linkages are explicitly taken into account.

Coordination of assessment in the very early hours will need effective scheduling of critical air transport resources. Emergency managers will need to allocate limited resources among competing demands-helicopters in particular may be needed early on for both assessment and casualty transport.

Scheduling of assessment resources is helped by having pre-existing "baseline" information on the affected region. This gives emergency coordinators the option to identify anticipated high loss zones and focus initial assessment activity on those areas where particular types off problem are predictable. For example, in tropical storms, maps off the following vulnerable areas will be important:

- Urban low-income neighborhoods
- Coastal villages
- Villages on flood plains
- Villages on steep hillsides
- Villages on low-lying river deltas
- Villages on barrier islands



MAPS

Accurate and credible information telling decision-makers what is not needed can help to reduce the overall complexity of the logistical response.

Sched7uling of assessment resources is helped by having pre-existing "baseline" information on the affected region.

Q. Why is it important for assessments to be multi-sectoral in scope? In your answer provide an example of how problems could result if an assessment were not multi-sectoral.

A. _____

Assessment activities in the impact and emergency phases of sudden onset disasters

While the precise approach will depend on the exact type of disaster agent, in all sudden emergencies a number of immediate actions are required to establish the framework for overall emergency assessments. High-value relief resources e.g. helicopters and mobile modern communications teams should be focused on the following activities during the first few hours.

1. Establish boundaries of the damage or disrupted zone and the location of any damage to major urban areas. Use air survey and/or radio communications with civilian authorities, police and military units.
2. Identify transportation blockages on main routes into the damaged area.
3. Identify major secondary threats to survivors-dam leakage, secondary flooding or landslides, damage to chemical plant or fuel-storage fires. Encourage rapid initial assessment and reporting by operating staff or local units of police or armed forces. Use air surveys where appropriate.
4. Assess damage to broadcasting facilities and review additional coverage required and resources available for broadcasting recovery. Effective communications with the public will be a major tool for mobilizing assistance and shaping the overall response.
5. Assess immediate and critical requirements for support to restore emergency telecommunications between police, military, fire services and hospitals in the most damaged areas.
6. Assign assessment teams first to areas from which no reports have been received.

ANSWER (from page24)

Some problems with data collection systems for assessment are that they:

- don't take into account how data needs change over time
- are not targeted at a specific user
- may be too general and not specific enough for decision-making
- lack back-ground or base-line data to assess disaster impacts
- ignore input of survivors
- by-pass existing information system
- not based on reliable sampling and survey methods

7. Attempt to establish the status of hospitals and clinics in areas affected by sudden impact disasters which are likely to have large numbers of casualties e.g. in earthquakes: those that are close to the epicenter, high density of old, multistory structures, narrow streets, high fire risk or where there is evidence of secondary hazard. Assessments should follow standard guidelines, which generally cover:

   Access to the disaster site
   Damage to structure
   Availability of essential equipment-X ray, sterilization, lighting
   Availability of essential stocks
   Availability of power and water supply
   Capacity of system to handle demands
   Personnel requirements and availability

8. Begin regional survey activity aimed at locating isolated and severely affected communities. Rapid identification of these communities will usually be needed if medical and other relief assistance is to be scheduled in time to be effective. Investigate the extent to which field medical teams are reaching injured people in isolated areas

9. Investigate the overall adequacy of treatment for injured people in these areas

10. Attempt to draw up a broad prioritization of areas requiring early organized search and rescue and, later, intensive search and rescue.
    - Establish the resources available for organized and intensive search and rescue in each area
    - In floods, focus assessment resources particularly on high-density urban areas especially squatter and other low-income areas; also high flood-risk areas including deltas, off-shore islands and flash-flood risk areas
    - In earthquakes, focus on urban low-income areas and other areas with high concentrations of old, multi-story domestic buildings Be aware that in search and rescue in earthquakes there is generally accepted to be a major drop in the survival prospects of trapped victims after about 24 hours

11. Review the condition of data-assessment centers; restore or improve communications with individuals acting as coordinators; and reinforce the communications linkages which are operating.

12. Establish the level of damage to air-traffic control, airport runways, fuel storage, cargo-handling and link routes at airfields nearest to the impact area.

13. Identify ways of reinforcing the highest priority elements of the local administrations' response. As a general rule, the following criteria may assist in making a decision:
    - Are local officials focussing on the highest priority problems first?
    - Is action concentrated on things the public is not capable of doing for itself?
    - Is priority given to restore the services and procedures that will help members of the public do what they want to do better?
    - Are people receiving the material items they actually need?

14. Review the government's accessible stockpile of essential items. Depending on the emergency, these may include plastic sheeting, building materials, boats and emergency storage facilities. This review will need accurate up-to-date information on the pre-impact location of critical resources, including large commercial stocks.
15. Shift priority form assessment of clinical medical requirements to support for specialists involved in assessment of public health requirements. Key factors off significance are large-scale population movements and water supply damage in urban areas.
16. Contact staff of lifeline services for assessment of lifeline system condition. The usual priority is:
    - Communications
    - Water supply
    - Electric power
    - Road networks and potential points off blockage
    - Sewerage systems
17. Critically review requirements for temporary provision of shelter.

Q. Choose three activities from the above list that have not been sufficiently addressed in assessments that you have experienced. Describe the consequences.

A. _____

_____

_____

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In-depth assessment during the rehabilitation phase

As conditions stabilize, usually after about one week, more in-depth assessments will be needed. Overall the aim should be to identify gaps and unmet and emerging needs and to develop more accurate estimates of the numbers off people requiring assistance and the amounts of materials and money required. Thereafter, as the disaster recovery continues, assessment will increasingly fulfil a program monitoring function, providing feedback to planners on the extent to which detailed implementation targets are actually being met. The major activities during the **rehabilitation phase** include:

- Restoration of "life-line" systems
- Safety of the basic infrastructure, hospitals, schools
- Critical and strategic industries

ANSWER (from page 26)

Problems and opportunities in one sector influence response strategies in other sectors.

CASE STUDY

Assessment in a Sudden Onset Disaster

During 1989, Hurricane Hugo wreaked havoc in the Caribbean and the southeastern United States. Damage was widespread throughout the region affected by this storm. Islands in the Caribbean were particularly isolated by the storm's high winds and attendant tornados. The Governor of one of the set of affected island chains conducted the initial assessment in a flyover. His visual confirmation of the damage was enough to declare that a major disaster had occurred. Unfortunately, the formal assessment process stopped at that point as authorities were told to determine actual numbers of affected persons by counting the numbers that presented themselves for assistance.

The emergency stage was beset by other problems as well. All of the communications capacity on the islands, as well as most "life-line" services, were out of commission. Added to this problem were reports of potential civil strife and a growing apparent need for a police or military presence. Media reports fed the confusion. Self-reports of survivors were inaccurate and not trustworthy.

The government and NGOs responding to the disaster were left with little useful information of emergency needs. Reports of the amount of destroyed and damaged housing and other problems varied widely. Relief providers, unable to systematically plan, developed worst case scenarios to plan relief. No progress was made in identifying simple assessment techniques that could provide reliable information.

Nevertheless, one method of bringing order to the chaotic situation was tried. Disaster recovery experts conducted aerial observation by helicopter of densely populated areas experiencing the most severe destruction. A simple count of blown-off roof tops was made. These numbers were aggregated and produced a satisfactory estimate of damaged and destroyed housing which also provided guidance to individuals estimating shelter, medical and food needs. The actual estimates of damage under this assessment technique were considerably less than the scenarios developed when information was completely unavailable and led to a better planned response.

Detailed investigations during the rehabilitation phase will normally need to include:

1. Damage to water distribution systems and estimates of restoration coverage. The main priority area for investigation will be areas of dense population and areas where critical or strategic industries rely heavily on water utilities for operation. Information required will include the condition of water sources, blockages to intake channels, the condition of power sources and pumps, the availability of water treatment (including essential chemicals), the condition of controls and switchgear, damage to stor-age facilities and details of network damage. Much of this information will be provided directly by the staff of these systems and assessment planning should aim to support them in this task with provision of transport, help for families and any other support needed.
2. Damage to other critical lifeline systems. These include electrical distribution systems, communications, transport (roads, bridges, railways, airports) and sewerage systems. In each case, the most appropriate sources of assessment data will usually be the staff of the agency concerned. The interdependency of these systems should also be recognized during the analysis of assessments. In each case, assessments should include estimates of the repair resources needed to restore the most important elements of the systems and reports on the actual repair facilities available.
3. Assessments during the rehabilitation stage should also be concerned with the safety and basic functioning of hospitals, clinics and of school buildings. In earthquakes particularly, detailed engineering surveys of hospital buildings should be carried out as soon as possible. During this stage there may be additional unmet needs in the medical sector which need to be identified quickly. For example, immediate attention may be required to attend to the special needs of those who are already disable and those in the population who are injured in such a way that they risk becoming permanently disabled as a result of their injuries. People often do not receive the specialist treatment or rehabilitation needed. Among the UN agencies, UNICEF, ILO and WHO may be invited to help in planning how specialist assessments can be made at the first opportunity and how additional services can be developed. A point to stress is that there is emerging evidence that in earthquakes, in particular, remedial treatment of post-traumatic injuries such as joint fractures may need to begin within days if long-term disability is to be avoided.
4. Additional assessments may be needed to review the coverage of relief assistance for special groups including bereaved families, handicapped, injured and the elderly.
5. During this phase, there will be a need to begin surveys of small and large businesses to estimate recovery needs. The starting point should be so-called critical industries. The nature of this category depends on the particular pattern of damage and the interdependencies within the economy, but is likely to include: sectors upon which major employers depend for inputs; suppliers of basic needs for large urban populations (for example, food processing); suppliers of inputs to lifeline systems; energy industries such as fuel refining; and industries which provide inputs to repair other important sectors, including cement, ferrous reinforcement material and other construction items.

Q. How does the assessment focus shift during the rehabilitation phase?

A. _____

The major activities appropriate for the recovery phase include:

- Assessing damage to the social structure
- Assessing damage to strategic economic sectors
- Linking assessment to development programs

After the first two or three weeks-or perhaps earlier in some cases-there will be a need for surveys to help plan reconstruction. These must focus not just on damage *per se,* but on the implications of damage to critical economic resources for the country's future development strategy and on the social impact this will have.

UN agencies and NGOs have a substantial role to play. For example, bodies like ECLAC can play a coordinating role in linking damage assessment information with economic policy formulation.

A starting point is the development of a damage information compilation system. UN agencies will be in a position to work with the national authorities to build up the systems needed to collect and analyze a wide range of data on damage and losses to national assets.

Damage information system components

- Farm land and crop damage
- Livestock losses
- Irrigation damage
- Fishing assets damage
- Roads and bridges
- Embankment and flood control
- Reservoirs and dams
- Harbors and ports
- Railways
- Electricity supply
- Gas supply
- Water supply
- Housing
- Schools
- Medical facilities
- Telecommunications
- Industries by sector
- Cultural assets
- Dead and missing by demographic category
- Injured, by type of injury and demographic category
- Homeless

Where important cultural or historic monuments have been affected, consider inviting UNESCO's Division of Cultural Heritage to send expert staff to assess the extent of damage and recommend the remedial measures needed.

Of particular concern is the impact of the disaster on populations involved in marginal or informal economic activity. These include small traders and shopkeepers, subsistence farmers and small-scale fishermen. Proportionately, the per capita losses in these groups may be among the highest.

Additional information will be required on the productivity of specific industrial sectors, changes in employment trends, information on material shortages and bottlenecks to production and other interruptions to inter-industry flows. Implications for the balance of payments should be a major focus in some countries, for example, those suffering heavy losses to cash crops. In general, during this phase the focus of information processing will shift decisively to the planning institutions within government and to those international agencies concerned with macro-policy. Information sources will include industry associations, local planning officials, insurance companies, banks and investment analysts. A series of formal surveys of small and large-businesses can provide additional detailed data.

An important role for NGOs and the UN system during this phase is to identify opportunities for linking on-going reconstruction and development activities with disaster mitigation: in effect, building in protection against future disasters during the reconstruction process for the previous one.

Of particular concern is the impact of the disaster on populations involved in marginal or informal economic activity.

Q. What are important objectives of assessment during recovery?

A. _____

ANSWER (from page 31)

Assessment shifts from identifying emergency needs for life-saving to detailed assessments the requirements for restoration of "life-line" systems and the safety and functioning of critical institutions like hospitals **and schools.**

Practical guidelines on assessments in slow onset emergencies

Food emergencies, influxes of displaced people and other slow onset emergencies

In food emergencies-where market instability, widespread loss of purchasing power or widespread failure of distribution leads to a collapse of household fool-security-and in the types of large-scale population displacements caused by war or famine, accurate and reliable assessment is also a crucial management tool. However, assessment requirements are shaped by a rather different set of factors:

Lead times for aid can be long. Donors may be unwilling to commit large amounts of assistance in response to ambiguous information. Reliable information is needed for forecasting and prediction at a very early stage, often before many of the problems are visible and this information must be reported to donor-staff who may be relatively unfamiliar with the affected area and its problems.

Donors may be unwilling to commit large amounts of assistance in response to ambiguous information.

Efficient distribution of essential food and non-food items is usually a key factor early on. Matching food requirements to food supply flows along the transport chain is a crucial element. If the affected population is moving, the problems caused by population density and inadequate services at points of concentration will need to be addressed very quickly. Operationally, early assessments will have to place special emphasis on the needs for implementing rapid immunization against childhood diseases, emergency water supply, nutritional monitoring, bulk food logistics and the administrative capacity for implementing fair registration and distribution systems.

In **food emergencies,** including pre-famine conditions, the initial requirements are to establish the spatial distribution of the affected populations, review the condition of various categories of people within that population and identify groups at special risk. Data required will include:

1. Staple food availability in the areas affected and the prices of these foods.
2. The availability of alternative foods including wild food.
3. The current nutritional status of these populations.
4. Critical medical/health problems, particularly acute diarrhea disease and measles.
5. Indicators, where available, of significantly increased death rates among specific groups.
6. The condition of emergency logistics systems, including transport capacity, fuel availability and the location and capacity of storage facilities.
7. The condition of systems for delivering emergency health care, including measles immunization and the associated cold-chain, and emergency water supply.
8. Options for income generating projects (refer to the latest operational manuals of the UN World Food Program for detailed coverage of these types of projects).
9. Options for alternative projects for enhancing food security. Like the use of strategic food stocks as a tool for market-price stabilization and the use of cash as a benefit.

■CASE STUDY

Qualitative Assessment of Population Displacement

For many years, Guatemala has been plagued by civil unrest that has affected mostly the rural Indian populations of the highland. In 1982, a preliminary visit to a war-torn northern zone that once was home to approximately 40,000 people revealed that the area was virtually uninhabited. But by May of 1982, many former residents had begun to return to their villages only to find their crops and homes destroyed and no available medical services. Newly arriving residents were faced with the prospect of having to wait at least one full harvest cycle (nine months) before they could secure food.

Three conclusions were reached: 1) a very large population was affected but very few outside agencies knew the extent; 2) there was no assessment going on; and 3) the little resource delivery that was taking place was inadequate and not coordinated. An information base was needed to begin selecting target areas for relief activity.

In August, 1983 a bilingual field team of local interviewers was trained. The use of local interviewers instilled confidence and trust in the Indian population. The interviewers used two types of survey techniques:

- An observational checklist for the interviewer to document rapidly his/her impressions of accessibility; agriculture; community appearance; resident attributes and public services

- A preliminary and in-depth key informant checklist to document community attrition; numbers of refugees and widows; amount and duration of abandonment; quality of the last harvest; and amount of destruction attributable to the civil strife.

Key informants were chosen from mayors, civil patrol, commissioners, religious leaders, teachers and various community committee members. Time spent in each community was kept to a minimum. Information from the interviews provided detailed village-level information that was compiled into community profile sheets.

During the assessment exercise, 187 villages were visited. Sixty percent were at least moderately affected by the violence. Twenty-eight percent were found to be in a high need using a set of reliable indicators derived from the survey data. These communities were targeted for immediate relief.

Although the techniques were not based on formal sampling and survey methods they had the advantages of village focus, speed, simplicity, and relatively low cost (approximately $800.00(US Dollars) per week.

Before this formal assessment took place, relief organizations were aware of the general but not specific problems. Because the methodology targeted specific villages that were seriously affected by the violence, the relief community was prompted to take immediate action and concentrated aid distribution to the most affected communities minimizing valuable resource waste caused by targeting of less needy populations.

This case study was adapted from Rapid Post-disaster Community Needs Assessment, Richard A. Margoluis et al, **Disasters**, Vol.13, No.4, 1989, pages 287-299.

A large-scale **population displacement** emergency may arise from either conflict or the catastrophic breakdown of food security in an area. In displacement emergencies, an overall objective of assessment is to build a picture of the scale and geography of the population flows over time. Because rates of flow can grow fast and quickly exceed the existing services available, early action needs to concentrate on forecasts of the numbers of people leaving affected areas, the routes likely to be travelled and the projected settlement patterns in relation to available services and resources. Assessment should also concentrate on identifying early signs of breakdowns in the provision of services, including bulk food logistics programs, emergency water supply and health services and registration and distribution systems. From the start, decision-makers will need clear displays of sighting reports of groups en route and displays of known flow rates, settlements, numbers and demography.

In the longer term, in food and population displacement emergencies, assessment requirements shift to distribution effectiveness and assessment of emergency response needs. The focus shifts to the following problem areas: new influxes, epidemics, flooding, impact of local conflict, agricultural recovery requirements and repatriation and relocation requirements.

Q. What are major challenges in conducting assessments in slow onset disasters?

A. _____

ANSWER (from page 32)

Assessment during recovery focuses on:

- Damage to important economic sectors and individual businesses;
- Opportunities for mitigation;
- Opportunities to build development programs into the recovery

NOTES

ANSWER (from page35)

Lead times can be long, information may be ambiguous and donors may be reluctant to act without highly dependable data. Assessments must accurately forecast and predict possible future contingencies related to population movement and supply system breakdown.

PART 3

THE ROLE OF THE UN IN RELATION TO ASSESSMENTS

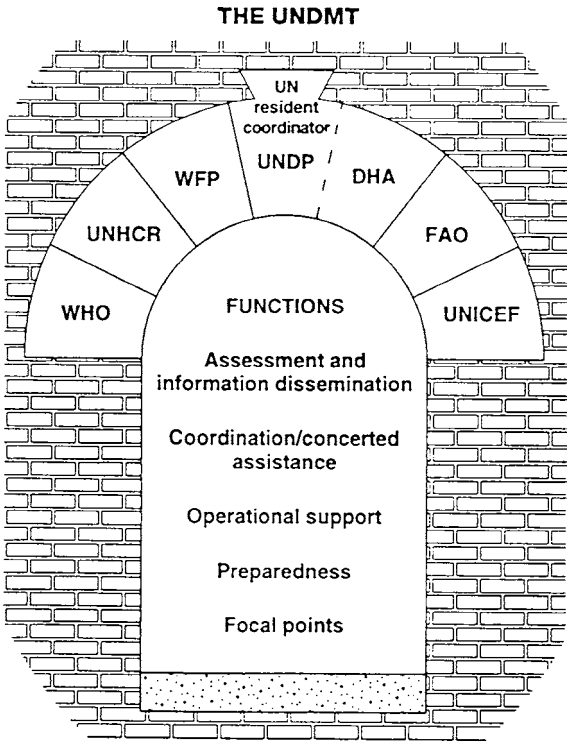
This part of the module is designed to enhance your understanding of:

- *the responsibilities of the UN system for assessment*
- *the role of the Disaster Management Team*
- *the responsibilities of the resident coordinator and how that role changes during recovery*
- *how and with whom information should be shared especially when requesting international assistance*

UN agency representatives

When international assistance is likely to be required after a disaster, the UN system must be prepared to provide advice and assistance to the government in assessing damage and needs, defining strategies for response and specifying material requirements. The UN must be able to provide potential donors and the international community as a whole with objective statements on the priority needs for international assistance.

The focus of emergency response coordination within the UN system in a country will generally be the UN Disaster Management Team (DMT). Officials from all the major UN agencies in-country will be designated as members of the operations group for the DMT, under the leadership of the resident coordinator/representative. Each agency will usually take on a specific assessment role (see figs.4 and 5)



The UN must be able to provide potential donors and the international community as a whole with objective statements on the priority needs for international assistance.

FIGURE 4

FIGURE 5

USUAL ASSESSMENT RESPONSIBILITIES WITHIN A UN-DISASTER MANAGEMENT TEAM

UNDP	General infrastructure and government administrative services, possibly in conjunction with the World Bank.
UN DHA	Working through and supporting the resident coordinator/representative, helps to consolidate and reconcile information from all UN-DMT members and other bodies and to gather information on sectors not covered by the specialized agencies.
FAO	Effects on food and cash crops, fisheries and livestock operations. Harvest prospects. Requirements for rehabilitation, including possibilities for alternative crops.
UNHCR	The needs of refugees. Some consideration of the needs of host populations and returnees in conjunction with other organizations.
UNICEF	Special needs of children and women especially in the health, education and social sectors. Aspects relating to health, nutrition, water supply (particularly rural or other small systems) and sanitation are addressed in conjunction with WHO; selective feeding programs and logistics with WFP.
WFP	Food supplies. Requirements for, use and delivery of food aid and arrangements for its delivery and distribution. Overall logistics.
WHO	Health sector considerations: medical and preventative health needs; epidemiology; long term effects on health structures; water and sanitation. Water and sanitation (large-scale possibly in conjunction with World Bank, small-scale with UNICEF)

UNDP has a major role in coordinating pre-disaster planning and disaster response. The resident representative is, ex officio, the representative of DHA at the country level. As the UN resident coordinator, he or she serves as the focal point for coordination within the UN system and may also take on a coordination role in relation to the wider international community, including embassies, NGOs and bilateral donors. In some countries, UNDP has established standing emergency units to help cope with long-term chronic emergencies. In many emergencies, DHA may send delegates to assist UNDP in this coordination process.

All members of the United Nations Disaster Management Team, under the leadership of the resident coordinator, must collaborate in:

- Contributing in an appropriate manner to the overall assessment
- Developing agreed, UN-DMT conclusions and recommendations concerning needs and priorities for international assistance
- Assisting the government, as required, in specifying needs and formulating appropriate requests for international assistance

Each agency is responsible for assessments in accordance with its own competence and mandates and is expected to contribute its information and conclusions to the overall UN-DMT effort. The resident coordinator must ensure that all aspects are covered, while respecting the individual agencies' mandates-a procedure that should wherever possible be discussed and planned during the preparedness stage.

Q. *What is the role of the UN system in assessments?*

A. _____

Key elements of the resident coordinator's early disaster role

Where the government, possibly in collaboration with the national Red Cross/Red Crescent Society and other operational agencies, has a proven capability to undertake and coordinate a thorough and objective assessment, the resident coordinator and the UN-DMT, assisted by DHA where required, will need only to satisfy themselves of the validity of the assessment and the stated priorities. This can be done by appropriately designed field visits and discussions with officials and people directly affected by the disaster.

However, where direct UN assessment assistance is welcomed and required by the authorities, the resident coordinator/representative and the UN-DMT must carry out a range of actions:

- Work with the government and others in organizing the collection and assessment of data, including specifying the technical expertise required to supplement existing local capacity.
- Define the role of each individual UN agency in the overall collaborative assessment effort and that of individual UN staff in each field survey visit undertaken.
- Ensure that appropriate expertise for assessment available in the various UN agencies and offices is mobilized within the country and, when necessary, from outside the country.
- Help to mobilize and integrate relevant expertise available elsewhere in the country especially from bilateral organizations, NGOs and national bodies.
- Inform DHA and concerned aid organizations locally of the arrangements being made and any requirements for additional technical and logistical assistance for the assessment. DHA will contact other agencies and institutions at the international level as appropriate.
- Where necessary and with the agreement of the government, bring together and dispatch a UN assessment team to the stricken area to conduct an independent assessment, involving national or international experts if needed. Each visit must have specific and predefined objectives and be planned to ensure that the visiting team meets those objectives without wasting the time of all concerned including survivors, relief workers and local officials. Special care should be given to the appropriate expertise for assessment specialists. The box below details the desirable qualities:

Any suggested relief strategy or response which is derived from an assessment must fully respect the rights of non-interference in the affairs of the affected country.

The resident coordinator will be required to take special account of the government's own assessment of the situation and may need to wait for the compilation of that assessment before responding officially. Any suggested relief strategy or response which is derived from an assessment must fully respect the rights of non-interference in the affairs of the affected country. The government of the affected country has the ultimate responsibility for seeking international support and coordinating and administering relief.

Profile for an assessment specialist

- ✓ "Seasoned" disaster expert
- ✓ Familiarity with the affected country
- ✓ Knowledge of the local language
- ✓ Leadership skills
- ✓ Team worker
- ✓ Decision-maker

ANSWER (from page39)

- Provide assistance to the government in assessing damage, needs and strategies for response.
- Provide potential donors and the international community with accurate information on priorities for assistance.

Resident coordinators/representatives are sometimes requested to take on a coordination role when the elements underpinning coordination are themselves most uncertain. In the absence of a detailed previously defined emergency plan, valuable time may need to be spent establishing vertical and horizontal channels of communication, establishing responsibilities for data collection and information sharing, coping with overlapping roles and responsibilities and getting agreement on goals and priorities. This is often complicated when systems for information sharing are badly disrupted and damaged. ***Relatively minor emergencies can sometimes provide an opportunity to highlight these problems resulting in the development of improved systems before a major emergency arises.***

The role of the resident coordinator as relief activity develops

As relief operations get underway, the resident coordinator/representative will need to maintain an overview of assessments form the UN perspective and ensure that all relevant aspects and all affected areas are systematically covered.

A multi-sectoral approach to the assessment in which agencies and sectoral entities collaborate and agree on findings and response strategies is essential. Sectoral assessments which are undertaken independently and in isolation from each other are likely to duplicate effort and lead to gaps in coverage and information. The need will remain to try to piece together an overall situation assessment, reconcile different perspectives and determine inter-sectoral priorities.

The resident coordinator/representative must collaborate closely with the national Red Cross/Red Crescent Society, the LRCS and ICRC (where present) and NGOs in assessing all types of emergencies, especially those involving displaced persons.

Every effort should be given to developing consensus among the national and local authorities, the donor community and operational agencies concerning the situation, any assistance requirements and proposed interventions. Without agreement on needs and priorities, there will not be wholehearted cooperation–there may even be competition–in response. Where there are differences of opinion which cannot be reconciled, the resident coordinator/representative should specify them, with the underlying reasons where possible, to DHA.

With regard to the phasing of the assessment, it is worth emphasizing that the first assessment will generally have to be conducted using in-country personnel. This involves, within the first few days, a review of scope and scale of the disaster and the areas in which assistance is required. The follow-up detailed assessment to define precise needs sector-by-sector and draw up a concerted inter-agency program can be supported by additional specialist personnel from the various agencies and/or multi-agency teams.

The resident coordinator/representative must also help all concerned to include a development perspective in the planning of emergency and post-disaster assistance.

Where there are differences of opinion which cannot be reconciled, the resident coordinator/ representative should specify them, with the underlying reasons where possible, to DHA.

The resident coordinator/repre-sentative must also help all concerned to include a development perspective in the planning of emergency and post-disaster assistance.

Q. Who has the ultimate responsibility for seeking and defining the need for international assistance?

A.

- ☐ *The heads of the separate UN agencies?*
- ☐ *The government of the affected country?*
- ☐ *The resident coordinator?*

Check the appropriate box.

Reporting assessment information

Reporting and sharing of information derived from assessments can usually be best achieved by the following actions:

- Regular meetings of the UN Disaster Management Team and continuous exchange of information with all UN partners
- Daily contact with the national disaster management counterpart
- Statements of relief needs and contributions prepared and made available regularly (initially daily) to the national disaster management counterpart and local donor representatives
- DHA SITREPS distributed to the national disaster management counterpart and local donor representatives immediately on receipt

Formulating and screening requests for international assistance

Where it is determined that there is a need for international assistance, the resident coordinator and the UN-DMT should, on the basis of the agreed assessment, assist the government in formulating a request or appeal which is as accurate and specific as possible. This is a critical area in which the resident coordinator and the UN-DMT can have a particularly significant role.

The resident coordinator may need to continually clarify requests and take initiatives to bring together separate host government bodies with overlapping or closely-related interests, usually in collaboration with the Ministry of Foreign Affairs, to ensure coordination and consistency in their separate proposals and requests to external donors. There may be opportunities to review and refine specifications, quantities, required delivery schedules and priorities with the responsible authorities to ensure that requests are realistic and in a form which will encourage the best possible donor response.

Resident coordinators may need to seek agreement on a phased approach to requests, with a first statement of immediate, priority requirements, possibly accompanied by general indications of the scale of those additional needs which will be defined in more detail and announced later.

Decision-makers' perspectives on the strategic requirements for disaster recovery are likely to change quickly as a more accurate picture emerges of the actual needs and the surviving resources. All those involved should be clear that any initial statement is necessarily "provisional" and will be updated or added to as more information becomes available. Even so, reports must be as accurate as possible and not mislead through generalization and/or exaggeration.

Reports must be as accurate as possible and not mislead through generalization and/or exaggeration.

While the UN-DMT assists the government to determine overall needs for international assistance, several of the UN agencies may identify particular programs of assistance which they will propose to implement, subject to the mobilization of the required resources. The resident coordinator and the UN-DMT must endeavor to prepare an overall "concerted" program of assistance proposed by the UN organizations and agencies which incorporates the separate agencies' proposals, is coherent and focuses on the priority issues. This should form the basis of a united appeal for funds in which the organizations responsible for particular elements will be clearly identified.

It should, nonetheless, be stressed that the united appeal will identify and support the various appeals of individual agencies, rather than substitute for them. Donors will be free to channel their response to the various organizations in accordance with their own wishes.

Q. What are the steps the resident coordinator should take in formulating and screening requests for international assistance?

A. _____

NOTES

ANSWER (from page 42)

The government of the affected country.

ANSWER(from pate 43)

- Clarify requests by the national government and the UN Agencies to ensure a “coordinated and coherent” appeal and if necessary, convene meetings to eliminate gaps and duplications
- Assess whether a phased approach for assistance is necessary.

PART 4

PREPAREDNESS PLANNING FOR EMERGENCY ASSESSMENT

This part of the module is designed to enhance your understanding of:

- *how to design a comprehensive assessment system*
- *what elements of an assessment system can be in place as a part of preparedness activity*
- *what activities will contribute to better preparedness for assessment*

Assessment systems

Effective assessment requires a coordinated and managed set of pre-planned actions. Taken as a whole, the staff organizational arrangements and data-handling arrangements needed to achieve this constitute an **assessment system.** There are at least seven elements of such a system, (see fig. 6).

First there must be an **overall assessment plan**, agreed to by all the operational parties. This will establish areas of responsibility and accountability, guidelines and standard working procedures and reporting channels. It will also establish how assessment responsibilities will change with time, as the focus of activity shifts from emergency life-saving and restoration of services towards social and economic planning for recovery and reconstruction. The assessment plan must incorporate a set of more detailed **contingency plans** which take account of differences in the types of possible hazards affecting the country.

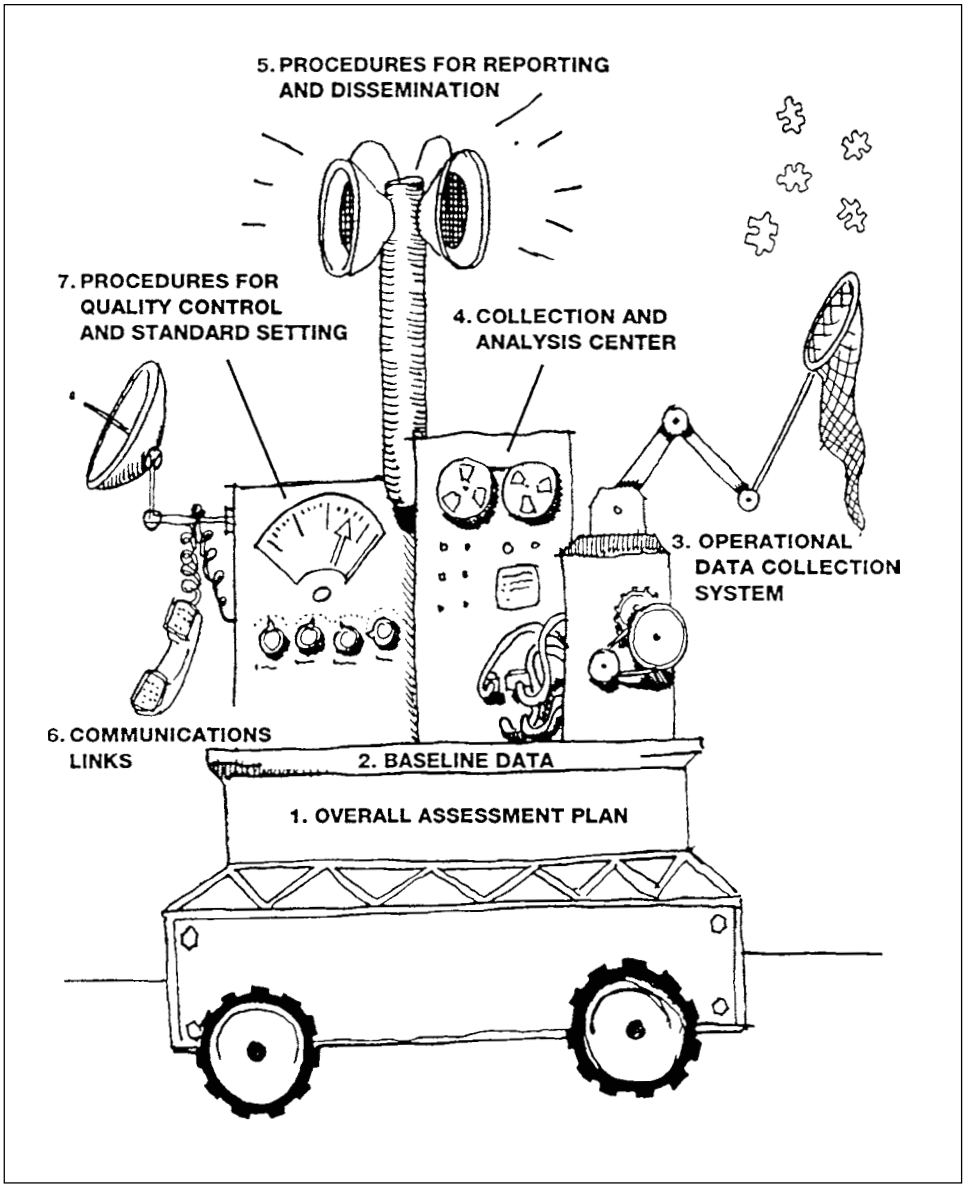
Second, there should be a comprehensive collection of **baseline data** available quickly and easily to those who may need it. The information that can be derived from such a database usually includes:

- the size and demographic structure of the affected population;
- the location and characteristics of "lifeline systems" i.e. water, power, telecommunications, transport;
- the location, ownership and size of stockpiles of material resources which can be used for relief;
- the administrative structure in the affected area.

Third, there needs to be an **operational data collection system** which can operate in the immediate aftermath of a disaster. This will generally include designated reporting points, reporting procedures, designated communications routes protected or duplicated where appropriate and designated field investigation teams. These must be supported by data gathering procedures which are rapid, structured and based on a commitment to use formal sampling and survey techniques, however simple.

FIGURE 6

COMPONENTS OF THE ASSESSMENT SYSTEM



The ***fourth*** element consists of one or more **collation and analyses centers** with designated staff and tested procedures.

Fifth, there will need to be established and tested **procedures for reporting and dissemination** of assessments to identified points in the decision-making and response system.

Sixth, the **communications links** by which information will be disseminated will need to be defined, improved and protected, regularly tested and the arrangements institutionalized.

Finally, ***seventh,*** there must be **procedures for quality control and standard setting** for systems development, management, data-collection and assessment operations. These procedures should be integrated and made explicit in the overall assessment plan.

Q. What are the key components of an assessment plan?

A. _____

A useful starting point in preparedness is to clarify and clearly document the responsibilities for emergency actions at each administrative level in government. UN agency planners need to review preparedness measures for assessment which may have been taken by the national government. These measures should include appointment of an assessment coordinator and pre-selection of assessment teams and training for damage assessment. It should also include selection and training of local on-the-spot reporters within lifeline-related organizations, local civilian authorities, police and armed forces. This is the stage at which it is essential to identify gaps in coverage and to reconcile opposing points of view.

A useful starting point in preparedness is to clarify and clearly document the responsibilities for emergency actions at each administrative level in government.

There should be a review of the effectiveness of programs of routine surveillance which may underpin continuing relief assessment particularly for public health. Government emergency reporting systems should be built upon existing reporting mechanisms if possible. UNDP and other UN bodies may have a major role in strengthening and supporting mechanisms for emergency transmission of data.

All UN organizations potentially have a major role in assisting with the collection of baseline information and making it available for emergency use. This is an area in which UN coordination may be particularly appropriate.

Procedures should be established to assemble United Nations disaster assessment teams in-country. The operational composition of the team will depend on the type of emergency. Staff members with field survey experience are desirable in all cases. Since many of the techniques for collecting and analyzing assessment data are drawn form epidemiological procedures, the presence of a professional epidemiologist on the team may be of considerable benefit in most disasters. Joint inter-agency teams are particularly useful. Planners will need to review in detail the precise resources needed for each type of assessment task. In particular, they should ensure that teams will have adequate transportation, fuel and communications equipment.

Joint inter-agency teams are particularly useful.

Sources of specialist assessment staff include national ministries, UN agencies, international agencies, local NGOs and national military units. Each team will need to review the precise tasks which may need to be done and explore in detail their relationships to other tasks-which ones are done in parallel with others and which will need to be done sequentially.

The box below provides an overview of roles and competencies that should be considered in composing assessment teams.

Assessment Teams

- ✓ Logistics specialist
- ✓ Public health-epidemiologist
- ✓ Nutritionist
- ✓ Environmental health specialist with skills in assessing options for expedient water supply

There should be contingency planning for possible assessment visits in which UN teams might be involved in emergencies. UN planners should discuss possible missions with senior national emergency management personnel and, if appropriate, with local personnel in advance. Plans should also include procedures to rapidly establish contact with pre-designated reporting groups in the first stages of an emergency.

The UN system in-country will need to build and test systems for collecting, receiving, collating and analyzing incoming data. UN planners should, as far as possible, share approaches with national authorities. The design of these systems will need to be integrated in the closest possible way with strategies to develop telecommunications which can be used under emergency conditions.

When making these plans, it is vital to anticipate:

- how various types of assessment data are likely to flow in particular situations
- the best ways for UN staff to position themselves in relation to these data flows
- how UN staff can contribute significantly to either the collection or routing of crucial data

These plans require an attempt, in collaboration with the host country authorities, to predict how communications routes will survive different types of disasters, where and by whom particular items of important data will be collected, how they will be routed and who will receive and act upon them. After a number of reviews of this type, it may become clear that a small number of communication routes and receiving centers will play a dominant role in handling emergency information. These may or may not correspond to those nominated in the country's emergency plan.

UN Resident Representatives may be in a position to encourage the development of national emergency communication plans which ensure that the communication systems of the various ministries and agencies are integrated in a coherent and protected network. There should be links with

ANSWER (from page 47)

Established areas of responsibility and accountability; guidelines and standard operating procedures; reporting channels; how responsibilities change over time; contingency plans for different types of disasters

UN-managed communications. In some cases there may be opportunities to include the strategic development of emergency civilian communications as part of UN-supported national telecommunications development, although this is usually a complex policy area.

Accurate and detailed inventories of damage and forecasts of the wider economic consequences of a disaster will have high priority within a few days of a sudden-impact disaster. UNDP/DHA staff may need to review the requirements for damage information compilation systems to help assess the economic implications of the emergency. Factors to consider include, staffing, equipment, database software, contacts, training and links with other ministries and departments. Attention should be given at the planning stage to ways in which a formal, detailed survey of damage to economically important resources will be managed.

Q. What are important activities in the preparedness stage to ensure accurate assessments?

A. _____

SUMMARY

- Assessment is a critical activity and essential component of the disaster preparedness and management continuum. It is through a formal assessment process that information is gathered and provided to the responsible decision-makers. Far too often assessment is an afterthought to the seemingly more urgent aspects of the recovery process, i.e. scheduling and delivering relief supplies. Furthermore, assessment is frequently seen as a one-time activity.
- This module has asserted that assessments must be planned for, systematically implemented and regularly conducted during the recovery process. It is through assessment that decision-makers can identify needs that lead to appropriate types of assistance. As important, assessment indicates what type of assistance is not needs thus decreasing inappropriate assistance. If assessment activities are conducted throughout the recovery process, decision-makers will be aware of emerging and unmet needs as well as mitigation and development opportunities. In addition, assessments can provide feedback on how the recovery is progressing which will allow for correction of programs which may be falling short of their objectives.
- Assessment is most effective when it is pre-designed as part of an overall preparedness plan which is tested and refined. Because the assessment process will differ for different types of hazards, the preparedness plan must take into account the range of possible situations the country might encounter. Information for assessment is best gathered through well designed observation and survey methods. These methods must take into account the ideas of a range of "relief actors" including disaster survivors. Assessments, therefore, should be coordinated.
- The UN system, as well as NGOs must stand ready to assist national governments in conducting assessments and analyzing and interpreting the information received. The resident coordinator, representing the UN system, is the focal point for the international community to understand and respond to disaster situations.

ANSWER (from page 49)

- clarify and document assessment responsibilities at all levels of government
- review the effectiveness of programs of routine surveillance
- establish procedure and clarify roles for the UN-DMT assessment
- build and test systems for collecting, receiving, collating and analyzing incoming data

ANNEX 1

ACRONYMS

DHA	Department of Humanitarian Affairs
DMTP	Disaster Management Training Programme
ECLAC	Economic Commission for Latin America and the Caribbean
FAO	Food and Agriculture Organization
ICRC	International Committee or the Red Cross/Red Crescent
ILO	International Labor Organization
LRCS	League of Red Cross Societies (now International Federation of Red Cross and Red Crescent Societies)
NGO	Non-Governmental Organization
OFDA	Office of Foreign Disaster Assistance (US AID)
PAHO	Pan American Health 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
US AID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

ANNEX 2

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