

## **Introduction to Disaster Assessment and Assessment Methodologies** **Mr. Terje Skavdal**

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Disaster management as an identifiable profession is relatively new. The tasks of disaster managers, however, have been around for a long time. They have typically been thought of as disaster relief assistance, or as specific ad hoc activities during and after a disaster or emergency. Many people have been disaster managers without thinking of themselves in that term.

There has been a growing awareness in recent years that all of these activities, in fact, comprise the process of disaster management. By understanding this as an identifiable role, we can describe a coherent and cohesive direction for people who are involved in disasters. This includes the spectrum of activities from administration to project implementation: disaster prevention, disaster mitigation, disaster preparedness and disaster response.

Disaster management is not necessarily a full-time activity. Indeed, for most people in the field, including many of the participants in this workshop, concerns for disasters issues form only a part of their total responsibilities. Similarly, what I am going to convey to you during this presentations is not designed for full-time professional disaster managers only. Rather, it is intended to be useful even for those of you who expect to be active only during some aspects of disaster-related operations.

One of the ideal objectives of anybody working with disaster management should be to eventually work themselves out of their jobs. The ultimate success of disaster management would be the elimination of the underlying causes of the disaster. This would contribute to minimizing the people's vulnerability to disaster. Consequently, we all have a responsibility to work towards a more disaster resilient society, even if our focus and responsibilities are in different part of the disaster cycle.

The objectives of this presentation are to:

- Create a better understanding of the objectives and scope of disaster assessment
- Increase awareness of how to conduct assessments
- Demonstrate the importance of analysis and interpretation to guide short-term and long-term response
- Familiarize you with assessment tools

The term disaster assessment refers to the survey and information collection activities carried out to determine the effects on disaster victims, the stricken community and the society in general. However, the assessment is just a part of the disaster information work. Disaster Assessment must be seen as an integral part of a response mechanism and as a planning tool. It is a part of the disaster management information toolbox.

The purpose of assessments in the initial phase of a disaster is to provide information that can guide our emergency services in activities such as search and rescue missions, pinpoint location and nature of secondary threats, provide information about the status of facilities needed to treat or support the survivors, and provide information about the access to stricken communities.

However, believing that assessment is something we do once and for all is wrong. Assessment is

a continuing process. Initial assessments have to be followed up with surveys designed to compile more detailed information about the extent of losses, and to provide program planners with information needed to develop and execute relief and reconstruction programmes. In this phase, damages are quantified and estimates of the impact of the disaster on the entire community and society are projected. Later, more detailed assessments, such as structural surveys and hazard mapping can be seen as a part of the assessment process, all aiming at provide specific information about reconstruction and mitigation needs.

In continuing disasters, the assessments process also includes monitoring of the situation and forecasting of future needs of the victims and supporting entities, being national authorities or relief agencies.

The objectives of an assessment in a disaster response situation are to collect information on the nature of a disaster and its impact. We want to describe the effects on people, their coping capacity and who are the most vulnerable groups. The assessment should help us identify the most urgent relief needs and the best methods of relief delivery.

In order to give recommendations on action, we need to describe the ongoing response, and I would like to emphasize the need to describe the local coping mechanism. We too often see inappropriate relief given, putting additional burden on an already exhausted local management capacity and depriving the dignity of the affected population. Among the reason for this happening is that the coping mechanism of local population is not explained or understood.

Any assessment should lead to actions, and an important part of the output of the assessment is recommendations for further response. Doing that we also need to look into political, logistical, managerial, etc. constraints. We also have to realize that we will never be able to cover everything we need to know in one single assessment. Often we need to undertake in-depth sectoral assessments. Finally, we should always describe the coordination mechanisms in place, both on local, regional and national level.

A disaster assessment might cover all these aspects. However, we must also realize that different governmental entities will probably be conducting sectoral assessments appropriate to their mandates. UN role will normally be to support these assessments or to pull their results together.

### **Assessment throughout the disaster cycle**

I believe you all are familiar with the disaster cycle. Assessment is a tool that we have to use in all parts of the cycle. However, the objectives and the methods used to assess a situation will differ in the various parts of the cycle. You have during this course been introduced to one assessment tool, i.e. Flood Hazard Map Manual. In my presentation, I will concentrate on the assessment in the response phase of a disaster. However, the techniques and concerns raised will apply throughout the disaster cycle.

A disaster assessments can be divided into the following elements: Pre-disaster Planning, Survey and Data Collection, Interpretation, Forecasting, Reporting and Monitoring

In the pre-disaster planning, we focus on identification of potential hazards, means of collection of data, and selection of formats for collection and presentation. Planning in non-disaster situation can help identify potential and specific information needs.

To ensure efficiency in the survey and data collection, we often need to use standard survey techniques, questionnaires, pre-planned checklists, procedures for data input, etc. However, we should never be dependent on this kind of tools. Our ability to directly observe a situation can give invaluable information in situation when time does not allow the use of more time-consuming techniques.

All information needs to be interpreted so it can be used by those responsible for decision-making. We need to analysis the information, recognize indicators of problems, and interpret and link information to action.

Forecasting is necessary to give an estimate of the entire situation, not only as it appears at the time of the assessment, but in order to forecast needs and trends

Reporting is an essential part of any assessment. The data must be communicated to appropriate agencies and in a manner that is understood at the receiving end.

We must remember that assessment is not the end result. Assessment is an ongoing process, and especially in slow onset disaster it is necessary to continue to monitor the situation on order to understand whether it is improving or deteriorating. Monitoring can also help us measuring effectiveness of our action.

The information we collect during an assessment might be grouped as follows;

- Baseline data: What used to be there?
- Situation: What has happened?
- Needs: What assistance is required?
- Capacity: What resources exist?
- Gaps: Where are the critical shortfalls?
- Risk: What are the existing risk/ primary and secondary hazards?

It is important that we relate our information to the need of key players involved in disaster management and response, nationally and internationally. The effectiveness of response will improve if the needs are more clearly defined and broadcast.

Frequently, disasters call for humanitarian aid from the international community, an area in which the United Nations system has a specific mandate and plays a major role, particularly with regard to mobilizing and coordinating international humanitarian aid. For the UN, it is important to be properly prepared and to have a good level of readiness to respond to disaster situations. Preparedness can be improved by having basic data available before a disaster happens. Any new information coming out of an assessment will supplement and enhance existing knowledge.

The sources of data we can use in an assessment will vary, depending on the time available to collect information and accessibility of sources. The type of sources we can use can be structured as follows:

- Affected population directly or through others
- Local and National authorities
- UN Country Team and field staff
- National Red Cross Society and Federation
- NGOs and International Organizations staff
- International (bilateral) response teams
- Scientific organizations

- Media
- Internet

Normally we will not rely on only one source, but combine different sources to get the best possible overview of the situation. The data we collect can be seen as either primary data, i.e. data where we are in direct contact with the informants. Examples on this are personal interviews, field surveys or direct observations. In many situations we have to use secondary data, i.e. data collected by others. This can be written reports, interviews in media, satellite imageries, etc. It can be a challenge to judge the quality of the various kind of data; however, it will always be important to use the right kind of data for the right purpose.

The data can be divided in two key categories: hard and soft data. Hard data, such as number of people affected, available resources, quantified needs, etc. are always requested, and much of our disaster management reporting systems are focused on collections of hard data. However, there are situations where we need data that can explain the background of a given situation, analysing socio-economic parameters or a political situation. This data we can classify as soft data, and they will normally require expert analysis.

The methods of data collection can include initial/local self-assessment, visual inspection, sample survey, key informant interviews, inter-organizational coordination meetings, detailed sector analysis by specialists, and surveillance sentinel and polling.

Which method or methods that will be most appropriate will depend on a number of issues, i.e. timeframe, resources available, urgency for actions, etc. We might need to compromise between what is desired and what are achievable.

In our analysis and interpretation of data we need to judge the reliability (can we trust our data?) and the credibility (can we believe in our data?) of our data. We often speak about the credibility gap, meaning the distance between assertion and reality.

There are different methods to be used to increase the reliability and credibility of assessment data. The most important methods are to crosscheck, triangulate and compare data with information from different sources. Doing that, and comparing with available baseline information will eventually reduce some of the most evident miscalculations.

It is also important to identify the biases we all bring along. There are many ways we can be biased. These biases that we all are influenced by include mandate, project, specialization, a key informant, an interviewer, you, politics, age, culture, class, ethnicity, gender, season, time of day and language. It is easy to give examples on how we can misinterpret a situation by biases. We might be given a term of references for our work that hinder us to focus on the most relevant issues, and the composition of an assessment group might be one-sided. Disaster Managers have historically been men. However, women and children are the group most frequently victimized by disasters. Honestly, how good are we all the time in knowing the needs of women and children, and how does our gender background influence the advice and recommendations we give? I will not try to answer that, but rather request you all to think it over.

All assessments will end up in a report. It might be a written report or only a verbal report. A crucial point in all assessment reports is to create believables – we must be able to communicate our findings in a manner understood by the receivers. Our reporting should be reliable and complete, and the information given should be internally consistent. Nothing harms a report

stronger than conflicting information. As disaster managers we need to ensure that data represented are consolidated or explained. In many situations, we will get information from more than one source. This is in most cases a strength. However, we need to ensure that the presentation of data are done in a coordinated manner.

In our reporting, we should always be clear about what different actors are doing. We should show the strengths and weaknesses of response. It might not always be an easy task, realizing that weaknesses in some cultures might be seen as a criticism. We should point to the possibilities for partnership and convey feasibility and sustainability.

At the end of this presentation I would like to say a few words on assessment planning, realizing that a good plan is half work done.

The potential users of the information should be consulted and involved in designing the assessment. The different actors involved in disaster management work might have different need for information, and we should avoid being too narrow in our approach. Often we will find that information we want to seek are already available, or can be obtained with small efforts.

Timing is important in the planning of assessment. Information can be available at different time in different sectors. Do not forget the need to collect baseline data, especially important for disaster prone areas. We must ensure that the composition of an assessment team reflect the expertise needed. The team must decide which survey model is most appropriate in order to quantify or verify information. We need to know what baseline data or standards will be used to determine the severity and implications of existing problems.

To formulate the essence of assessment is not an easy task. However, I have tried to formulate a few questions that might helps us in our assessments work. The questions we need to answer might be:

- What happened? What is happening. What might happen?
- How did it affect people? How does it affect people? How might it affect people.
  - directly: water, food, health, shelter, psycho-social, etc.
  - indirectly: income, harvests, infrastructure, etc.
- How are people/communities coping?
- What are the most urgent gaps or needs?
- Who is doing what already?
- What else should be done?
- Who should do it?

I have mentioned in my presentation different assessment tools. Still, common sense is the most valuable tool. Using that, and being honest and cognizant of our own biases, will be a good guideline for all of us involved in assessment work.

Thank you for your kind attention.