COURSE : DISASTER MANAGEMENT (MA/ MSc PART I)
Paper : II
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Topic : Rapid Damage Assessment

Rapid Damage Assessment: The overall purpose of any assessment is to provide information and recommendations to make timely decisions regarding disaster response. Assessments are conducted whenever there is uncertainty about the nature of an emergency response.

Assessment is the appraisal of any given situation prior to an intervention. This involves not only determining what the situation is, but also the background of why itis that way and what are the opportunities and risks which might affect any effort to change the situation. Assessment thus serves the purposes of (a) providing a basis for decisions on priority needs and optimal program response and (b) providing a baseline reference for future monitoring and evaluation activities.

Assessment is generally considered a kind of evaluation, known as ex ante evaluation (a critical analysis which selects and ranks various solutions prior to program approval). However, in emergencies or very unstable contexts, re-establishing this form of baseline picture is frequently required to the point that assessments begin to merge with monitoring activity (e.g., annual needs assessments).

This assessment collects information on the magnitude of the disaster and the extent of its impact on both the population and the infrastructure of the society. Typical contents of such assessments include:

1   location and size of the area affected by the disaster

2   number of persons affected by the disaster

3   mortality and morbidity rates

4   characteristics and condition of the affected population

5   major health concerns with types of injuries and illness

6   emergency medical, health, nutritional, water, sanitation, shelter, education and livelihood support situation

7   extent of continuing or emerging threats

8   damage to infrastructure and critical support facilities

9   damage to homes and commercial structures

10   damage to agriculture and food supply system

11   damage to economic resources, and social organization

12   vulnerability of the population to continuing or expanding impacts of the disaster over the coming weeks and months

13   level of response by the affected country and internal capacities to cope with the situation

14   level of response from other donor countries and organizations.

Rapid Assessment Procedures

Rapid Assessment Procedures (RAP) also known as Rapid Appraisal Procedures is a combination of informal methodologies like semi-structured and unstructured observations, key informant interviews, focus groups and informal surveys. These are combined with a number of techniques that help researchers and community members alike to communicate about complex concepts and relations, giving community members a more active role and helping researchers to understand a given issue in its broader local context.

The term "Rapid Rural Appraisal (RRA)" refers to a similar approach. 'Participatory rapid or rural appraisal' (PRA) employs basically the same techniques but includes a much stronger element of community participation and is usually considered an initial step in a process of participatory planning and action.

RAP is extremely useful for providing qualitative information and rough estimates on the order of magnitude for specific problems in often complex situations within a limited time frame. RAP methodologies are flexible and adaptable, making them useful for a number of contexts.

In an emergency assessment, particularly in the acute phase, RAP can help define the nature of an emergency, priorities for response, the potential development of a situation and its effects on the population, the subgroups who are likely to be most affected. This can be adapted for the shortest of emergency assessments to 3 to 4 a day or more in-depth versions. Methods used in RAP are the most appropriate for analysis using frameworks such as Strength-Weaknesses-Opportunities-Threat (SWOT) Analysis and vulnerabilities/capacities, as well as for analysis of coping strategies.

Basic RAP Principles

•   Triangulation:

More than one source of information, if possible at least three, should be used for validating and improving accuracy.

•   Optimal Ignorance:

Knowing what not to collect is as important as knowing what to collect. This avoids gathering much irrelevant data and wasting valuable time.

- Appropriate Imprecision:

For early assessment and decision-making, a great degree of precision is not required. Questions such as is there a food problem or not, is there an epidemic or not, are more appropriate than trying to assess the exact magnitude of the nutrition or health problems. The time saved may be used for investigating the causes of the problems and their time trends.

- Rapid and Progressive Learning:

Given the exploratory and iterative nature of RAP, new issues will be raised and explored from the data collected, leading to a deeper understanding of the problem and of their possible solutions.

- Learning From and Along with People:

Local perceptions of the problems and solutions are essential for planning culturally appropriate programs. This will avoid external misconceptions and give the local people a sense of program ownership.

- Review of Existing Information:

Consistent with the principle of triangulation, review of existing information is important, particularly where RAP is used in emergency contexts.

- Sampling:

Given the flexible nature of RAP, it is often assumed incorrectly that no sampling or only convenience sampling is used. RAP generally involves purposive sampling of some form, i.e., a conscious selection of cases based on certain criteria.

RAP Techniques

For each of the methods included in RAP – key informant interviews, focus groups, observations – a combination of the following techniques is used to facilitate information gathering:

Timeline:

As an initial orientation to a community or area, it is useful to identify key events locally. This is likely to involve identifying how and when the crisis has affected the local area.

Ranking:

Respondents may be asked to rank answers to a question, for example, health workers may be asked about the leading causes of death of under five children.

Sorting:

In pile sorting, respondents are given cards with a pictorial representation of the answers and asked to put them in one of a few piles, for example, "very important",

"average", and "less important". Pile sorting is often used for very structured wealth ranking, classifying families into 'rich', 'average' and 'poor' (or a local scale meaningful to the community) though this is often too time-consuming and sensitive for use in emergencies. Alternatively, sorting can be blended with scoring. People can be asked to give score (say, 0 to 10) to the possible answers to a question, for example, what kind of wood is preferred for fuel. Scores may then be summed or averaged across individuals to produce an aggregated preference. Great care needs to be taken in the use of these numbers in making any conclusions.

Proportional Piling:

This is a visual form of estimating proportions. One hundred beans, sticks, or the locally current form of counters are used. Interviewees can be asked for example, to show the distribution of between women with husbands (married or not) and women without, making piles from the 100 counters, which represent each group. An initial answer can be used for further probing, breaking down distributions. This is most useful for getting some sense of the population profile where no background survey exists or can be conducted, as well as for understanding relative importance of food sources, disease prevalence etc.

Seasonal Calendars:

A seasonal calendar is usually drawn on the ground in the form of a chart, placing months or seasons (using locally appropriate terms) along the top or bottom of the chart, and tracing the trends of interest through the year. This can be used to understand annual patterns (normal and otherwise) regarding the environment, population movements, labor, agricultural production, disease trends, access to health services, market prices etc. It helps to identify key issues in livelihood strategies. This need not be repeated many times.

Community Mapping:

Community maps, drawn in groups, can be useful tools for assessing different perceptions of the same reality. For example, community maps drawn by women may be quite different from those drawn by men. Mapping can be a good orientation activity at the beginning of an assessment, particularly to establish a spatial understanding of patterns such as population movements, trade routes, resource distribution and population sub-groups, and to begin to identify key issues in livelihood strategies.

Transect Walk:

A transect walk is a simple observation technique. The researcher/assessment team member walks from one extreme of the community to the other with a local community member accompanying as a guide to answer questions along the way about what is observed. In the acute phase of an emergency, this can be combined with a checklist for

semi-structured observation, or this can be used for unstructured observation and probing. Either way, it opens avenues for further questioning. Information can be recorded in a transect diagram (a cross-section view of the community) and/or can be transferred onto a geographical map.

Semi-Structured Interviews:

Talking to the people affected by the emergency is an essential step in assessing the situation. The respondents may be key informants or community members selected according to one of the sampling strategies mentioned. Whether key informants or community members are interviewed, the techniques are similar. The assessment team does not use a formal questionnaire with standardized questions and answers. Instead, checklists of items to be discussed under each topic are used. For example:

Topical Checklist: Water Availability and Access

- Sources accessible (security, distance, ownership)

- Quantity available by family (seasonal variations, other variations in availability, line-ups)

- Factors affecting access for different groups (labor available and how this conflicts with other concerns, distance, transportation)