

**Identification of flood victims and assessing damage:  
Exploring some methodological issues**

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**BRAC  
BRAC Research and Evaluation Division**

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## **Introduction and scope of the report**

Bangladesh faced a catastrophic flood in 1998 which surpassed all past experiences in recorded history. Almost two-thirds of the country went under water on an average for 8 to 9 weeks; 55 districts out of a total of 64, of which 32 located in the riverine areas of Jamuna, Brahmaputra, Padma and Meghna, were severely affected. A total of 33 million people were marooned of which 18 million needed emergency food and health services. It has caused a colossal loss to the economy and livelihood of the country. Being the largest indigenous NGO working for improving the socioeconomic condition of the poor in Bangladesh, BRAC was obliged to take a pro-active and effective role in the relief and post-flood rehabilitation activities so that damages can be minimised and sliding into the poverty trap can be prevented. BRAC's Research and Evaluation Division carried out a rapid survey<sup>1</sup> for damage assessment and give feedback to the programme management for developing a comprehensive need-based rehabilitation programme. The investigators had to work under a very difficult situation as the communication was severely disrupted, and overflowing of the rivers coupled with strong currents posed formidable risk to movement from one village to another. In the process, we developed some methodologies, enriched by feedback from the field staff at local area offices, which could be used practically under

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<sup>1</sup> A quick assessment of flood losses and post-flood rehabilitation needs in BRAC's programme areas by Syed Masud Ahmed et al.

the given circumstances. This report reviews the experiences of BRAC as well as other non-government organisations during the flood in search of some standard methodology for use in future. The flood-related activities of the NGOs, who usually work with the poorer section of the population, are supposed to supplement and/or complement those of the Government and not replace those. As such, the primary audience of the methodology suggested here are the NGOs working in a disastrous flood situation.

### **Data/ Materials used**

This report is based on Research and Evaluation Division (RED)'s work on flood '98 and other relevant secondary materials. Studies done by RED in 1988 and 1998 (see Bibliography) and report prepared by the Monitoring Department of RDP in 1998 are reviewed to identify valid and reliable methods to assist in the selection of flood victims and damage estimation. Besides, work done by other organisations as reflected in their publications, and various small-scale ad-hoc studies conducted by various research groups (e.g., Grammen's Programme for Research on Poverty Alleviation, BIDS, Citizen's Initiative for Confronting the Disaster or NDMU, Democracy Watch etc.) are taken into consideration. We are also immensely enriched from the experiences of BRAC field staff in this regard and feedback from them are also incorporated. In the light of such review and analysis, in the following paragraphs, we propose to describe a desirable methodology which can be used in future flood relief operations by the NGOs. This type of quick survey for prompt decision making by the policy makers and programme planners, adopts a flexible research design mainly based on group discussion, key-informant information, and observation, all modified according to prevailing situation. Use of professional researchers in stead of interviewers in the

survey will ensure validity and reliability of the data collected without loss of time required for training interviewers.

## **Description of the Methodology**

The proposed methodology in the light of past experiences from flood'98 is described below under two sections: identification of flood victims and assessing damage.

### **I. Identification of flood victims**

In a poverty-stricken country like Bangladesh, resources are always less than needed, especially in a disaster situation. Therefore, the question arises, whom to give assistance? How do we identify them?

The first step is to identify the worst flood affected districts; this can be done from information via Government sources and newspapers. Also reports from regional offices of the NGOs and other non-government sources can be used. The next step involves categorisation of the thanas under the above districts into severe, moderate and minimally affected areas. This has to be mainly based on the subjective assessment of the NGO's local field management. Such assessment may be based on considerations like the extent of the flood-affected areas in the thana, duration of flood, damage to the lives and properties, no. of people marooned, state of communication remaining intact, availability of food and water, pre-flood poverty level etc. Initial relief work by the NGOs should be concentrated in the moderate and severely affected thanas.

Next, villages under the thanas are to be categorised similarly into three groups using the same criteria as for the thanas, and again, relief work by the NGOs should be focused in the moderate and severely affected

villages. At the village level, key-informant interview and informal group discussion (see below) have to be done to identify the better-off households and they should be excluded from targeting. However, life-saving aids like safe-water, oral saline and medicine can be given to them as well, if they can't procure it for some reason or other.

In selecting the target households, priority should be given to the following types of households:

- landless households
- labour-selling households
- households with loss of means of livelihood (e.g., rickshaw-van puller, grocery shop owner etc.)
- households with no or invalid male members
- destitute households e.g., households with VGD cards
- households with severely damaged homesteads and household assets

Group discussion with BRAC members, members of other NGOs and UP Chairman and members can help in identifying these households quickly (see Fig. in annexure). Every attempt should be made to reach the inaccessible and remote areas of the particular village. Women and children deserve particular attention, because 'women are the worst victims of flood, and they suffer the most because of gender blind relief and rehabilitation strategies and plans'<sup>1</sup>. Name of the heads of identified households along with total number of household members should be noted. This will help to estimate the relief requirements for a particular village. Also, villagers opinion may be sought on the things they urgently need.

## **II. Assessing damage**

This task is harder and requires lots of skills and efforts from the investigators. Damage estimation can be discussed in two parts: a) damage to the people and, b) damage to the institutions (i.e., NGOs).

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<sup>1</sup> Coping with floods by Sohela Nazneen and Latifur Yasmin. In: Living with floods: an exercise in alternatives. Chapter 3, pp17. ed: Imtiaz Ahmed. UPL, 1999.

***a) damage to the people:***

After identification of the districts, thanas and villages in three specified categories, the actual task of damage estimation begins. This estimation should be done separately for each of the three categories of villages through on-the-spot visit. The investigating team should include some local staff who are well acquainted with the flood-affected areas.

The number of villages sampled in each category will depend on logistic considerations. However, the sample size should be such that it is not too large, but at the same time good enough for valid decision making. Disruption of communication may necessitate a compromise of randomness in sample selection. Here also we can follow the 'rule of three' i.e., three villages from each categories.

People taking shelter into high and dry places in the villages, in makeshift shelters on embankments, roads or schools etc. should be approached for information gathering and are assembled in a convenient place where there will be minimum distraction. At times this may be very difficult and will require a lot of efforts from the investigators. If there is no convenient place, the discussions can be conducted on the boat carrying the investigators to the village. After briefly introducing themselves, the investigators should explain the purpose of the discussion to the people and their consent taken before discussion begins. Active participation from the people will help the team to identify individuals who can give the kind of information required. At all times, adequate presentation from the women should be ensured. Also, due to the special circumstances prevailing, an atmosphere of informality has to be maintained. Every attempt should be made to be cautious about

overstatements regarding damage and crosscheck should be done before arriving at a conclusion.

For smooth running of the session, the team should have at least two persons, one to organize the discussion and the other to take notes. Data are collected by key-informant interviews, group discussion with villagers present and a small-scale structured interview with the programme participants present. The discussion begins on broad issues like current state of flood in the area, people's sufferings, problem of safe-water and sanitation, epidemic breakout etc. with the group of people assembled. After rapport building, business sets in.

Crop loss: The Crop loss is estimated on the basis of discussion with knowledgeable members of the community (usually the well-offs) and also, discussion with key informants (village leaders, religious leaders, teachers, UC officials etc.) on the expected yield this year for selected rich households in the villages compared to previous year's yield for specific crops. All information is crosschecked before recording.

Loss of homestead and productive assets: For group discussion, at least six to eight members (of BRAC and/or other NGOs organised poor people's groups) with some knowledgeable members from group's management, if available. Information on loss of homestead and productive assets (e.g., livestock, valuable trees, rickshaw-van, plough, shop, small mobile trade etc.) are recorded for as many members (who may or may not be present) as the discussants could recall in a structured form. While assessing damage to homesteads, cost for repairing the damage is considered. Damage to productive assets is estimated on the basis of what the particular asset would have fetched if sold in the market, excluding the salvageable. Information on household

assets (e.g., utensils, furniture etc.), poultry, loans and savings are recorded for only those members present in the group discussion.

A pre-tested structured form may be used for data collection on asset losses while checklists are used for group discussion and observation.

***b) damage to local institutions/ organizations (i.e., NGOs):***

Experiences from our work in 1998 flood showed that this estimation of damage to physical infrastructure and assets of the providers is best done by the local field management. Programme monitoring data provides additional valid source. However, if thought necessary, on the spot verification can be done on a small sample of field establishments. Usually, structured interview schedule along with physical verification of the damages will serve the purpose.

**Non-participant observation:** Beside data collection through the above procedures, non-participant observation by the members of the investigating team would provide additional dimension to damage assessment. This also provides another source to cross-check (triangulation). A checklist may be used for the purpose. Extent of inundation of the homesteads, agricultural fields and trees, damages to physical infrastructure like roads, culverts, schools etc. can be verified by direct observation. A look into their current life-styles (e.g., cooking, makeshift shelter etc.) may give an idea about loss of their household assets. Similar observation yields useful insight in assessing institutional damages.

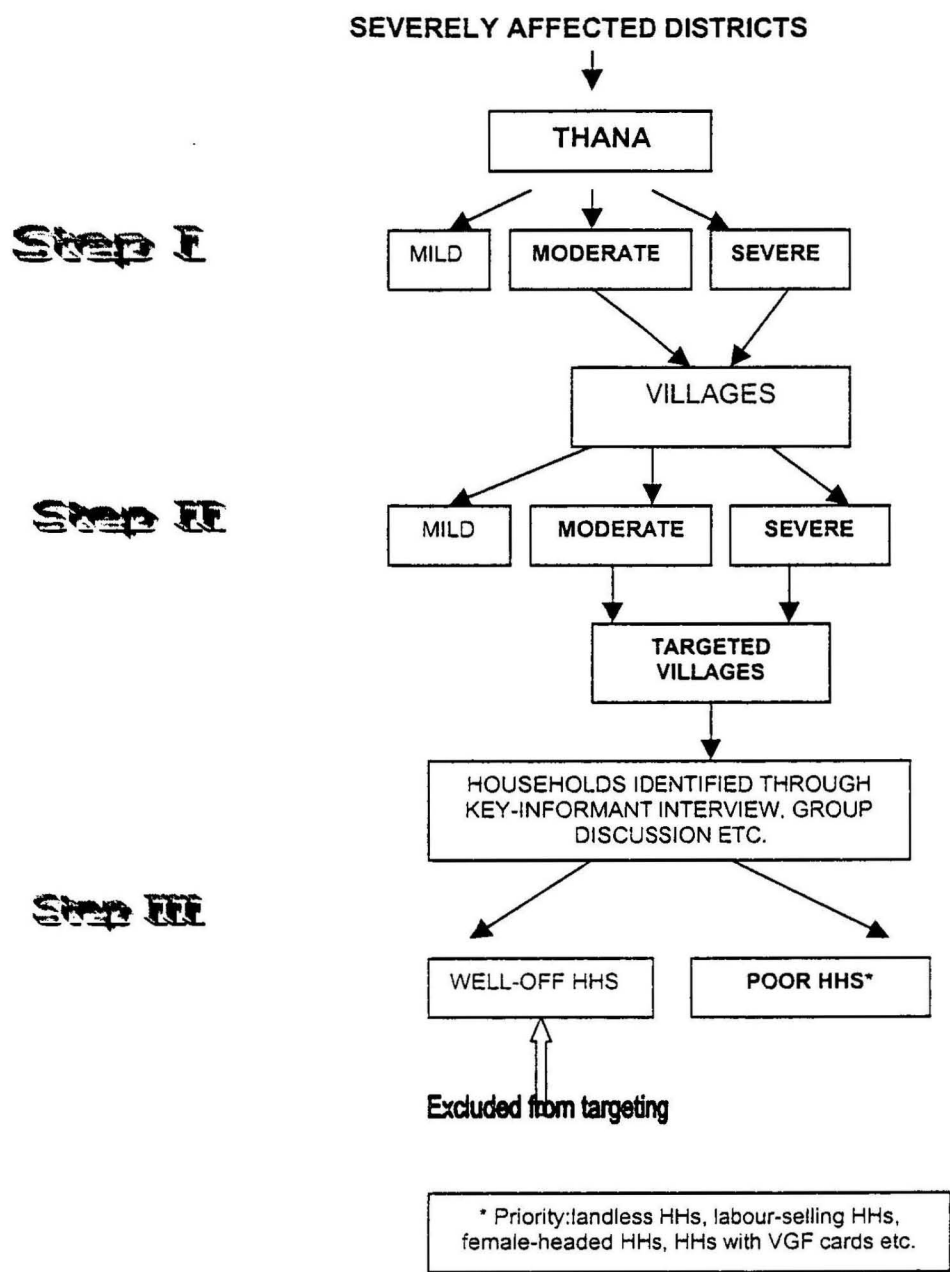


## **Concluding remarks**

In order to design a comprehensive need-based rehabilitation strategy following devastating flood, the programme planners need valid and reliable information within a short span of time. For this, the method of rapid survey is very useful in identifying the flood victims and assessing damage. Due to constraints of time and resources, this method have to be flexible enough to fit specific circumstances, and at the same time should help informed decision making. The work done by BRAC's Research Division and others in 1998 contributed development of useful knowledge in this regard. The methodologies described here are field-tested and used in a wide variety of circumstances. However, there is plenty of scope left for further improvement of this methodology in the light of new experiences in a disaster situation.

## **Bibliography**

1. Experiences of deluge: flood '98. eds. Syed Masud Ahmed & Hassan Sharif Ahmed. Research and Evaluation Division, BRAC. (forthcoming).
2. The 1987 flood in Bangladesh: an estimate of damage in twelve villages by AMR Chowdhury. Disasters. Vol:12, No.4. 1988.
3. Monitoring Report on Flood Rehabilitation Activities. Monitoring Department, BRAC.
4. Web page on flood: [www.bangladeshflood98.org](http://www.bangladeshflood98.org)
5. Flood 1998 and microcredit: experiences of PKSF by Dr. Salehuddin Ahmed.
6. Flood and post-flood situation in the rural areas of Bangladesh by Democracy Watch.
7. Grameen Poverty Research. Vol:4, No.3. November 1998.
8. Living with floods: an exercise in alternatives. ed. Imtiaz Ahmed. Dhaka: UPL, 1999.



**Fig: Selection of flood victims**