



Community Based Flood Hazard Mapping: A Simple and Easy-to-Understand Tool for Public Awareness

The organization highlights the advantages of community mapping in reducing casualties during disasters, emphasizing the importance of community involvement, therefore contributing to wider understanding and responsibility.

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Hazard maps have been recognized as an instrument for disaster management in many countries in recent years. However, most of them are literally only maps indicating dangerous spots and not useful for practical applications of disaster reduction.

In March 2003, the Ministry of Land, Infrastructure and Transport in Japan developed a "Flood Hazard Map Manual for technology transfer". Utilizing the manual, the Asian Disaster Reduction Center (ADRC), with the cooperation with Fuji Tokoha University, developed an exercise for "Community Based Flood Hazard Mapping". The exercise is a simple and cost effective tool used to raise public awareness while fostering the active participation of the community. The tool was developed bearing in mind that in order to raise public awareness and to ensure smooth evacuation when a flood or another disaster is imminent, maps must be user-friendly and easily understandable for the community.



In the case of a flood, hazard maps need to include not only inundation areas and depth but also information such as evacuation centres & routes, disaster management centres, dangerous spots, communication channels and systems, evacuation criteria, tips for evacuation including emergency kits and other items needed in evacuation, and mechanisms and symptoms of hazards.

According to a survey recently conducted in Japan, among the residents who evacuated, those who had seen such hazard maps were 1.5 times greater in number, and they evacuated one hour earlier than their counterparts who had not seen a map. In case of an acute disaster such as a flash flood, this time difference could mean a critical determinant in evacuation.

The community must be provided with relevant information regarding hazard maps and how to utilize them. Most importantly, how effectively hazard maps are used depends on the level of community awareness. The members of the community must be taught how to understand potential disasters in their area from the map to take appropriate countermeasures.



For this purpose, ADRC is advocating an approach whereby the community itself develops a hazard map through the following steps:

- 1) Members of the community along with experts and local government officials walk around the town or village to find out about, among others aspects, 'inundation areas', 'evacuation centres & routes', 'expected problems in disaster management activities', 'disaster related facilities' and 'communication channels'.
- 2) They then transfer the field observations and information onto a map using different colours to facilitate visual understanding.
- 3) Participants should discuss the 'possible disasters', 'problems to be expected in disasters' and 'possible countermeasures'.

It takes only one day and only a map, a camera and some colour pens are needed. Through lively discussion, members of the community can find out the barriers with regard to disasters and countermeasures.

ADRC intends to promote this mapping exercise in Asian countries by adapting it to the specific conditions of each country for effective disaster reduction.