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Disaster Preparedness

Are the measures that ensure the organized mobilization of personnel, funds, equipment, and supplies within a safe environment for effective relief. Disaster preparedness is building up of capacities before a disaster situation prevails in order to reduce impacts. Its measures include availability of food reserve, emergency reserve fund, seed reserve, health facilities, warning systems, logistical infrastructure, relief manual, and shelves of projects.

Disaster preparedness is just one element of a holistic approach to the reduction of risk associated with natural hazards. However, an adequate level of preparedness can be particularly essential to saving lives and livelihoods in the face of a natural hazard event.

Response

Response is the set of activities implemented after the impact of a disaster in order to assess the needs, reduce the suffering, limit the spread and the consequences of the disaster, open the way to rehabilitation. The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Preparedness planning:

aims to establish a standing capacity to respond to a range of different situations that may affect a country or region by putting in place a broad set of preparedness measures. This includes for example early warning systems, ongoing risk and vulnerability assessment, capacity building, the creation and maintenance of stand-by capacities and the stockpiling of humanitarian supplies. Undertaking a contingency planning process will be a key component in developing an analysis of what needs to be done in this process, and will help in the designing, testing and implementation of response actions

Preparedness planning is a process that requires constant and sustained vigilance. Developing a preparedness capability is only the first step.

Once the basic preparedness activities outlined in this plan have been undertaken, it is critical that human and other resources are allocated to maintain and update systems, and that lessons learned in the wake of hazard events be used to strengthen preparedness in the future.

Early Warnings

The term 'early warning' is used in many fields to describe the provision of information on an emerging dangerous circumstance where that information can enable action in advance to reduce the risks involved.
An Early Warning System (EWS) can be defined as a set of capacities needed to generate and disseminate timely and meaningful warning information of the possible extreme events or disasters (e.g. floods, drought, fire, earthquake and tsunamis) that threatens people 's lives.

Elements of Early warning

Early warning is the integration of four main elements:

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1. Risk Knowledge: Risk assessment provides essential information to set priorities for mitigation and prevention strategies and designing early warning systems.
2. Monitoring and Predicting: Systems with monitoring and predicting
Capabilities provide timely estimates of the potential risk faced by
communities, economies and the environment.
3. Disseminating Information: Communication systems are needed for
delivering warning messages to the potentially affected locations to alert local and regional governmental agencies. The messages need to be reliable, synthetic and simple to be understood by authorities and public.

4. Response: Coordination, good governance and appropriate action plans are a key point in effective early warning. Likewise, public awareness and education are critical aspects of disaster mitigation.

Need of Early Warning System

The first one, clearly, is public safety, and the protection of human lives.
 The second is the protection of the nation 's resource base and productive assets (infrastructure and private property or investments) to ensure long-term development and economic growth.

Prevention:
 is defined as those activities taken to prevent a natural phenomenon or potential hazard from having harmful effects on either people or economic assets. Delayed actions drain the economy and the resources for emergency response within a region. For developing nations, prevention is perhaps the most critical components in managing disasters, however, it is clearly one of the most difficult to promote. Prevention planning is based on two issues: hazard identification (identifying the actual threats facing a community) and vulnerability assessment (evaluating the risk and capacity of a community to handle the consequences of the disaster). Once these issues put in order of priority, emergency managers can determine the appropriate prevention strategies. Disaster prevention refers to measures taken to eliminate the root causes that make people vulnerable to disaster.

ROLE OF INFORMATION, EDUCATION, COMMUNICATION AND TRAINING

Information, Education and Communication (IEC) are of vital significance for disaster preparedness, prevention and mitigation. IEC are the essential constituents of any programme especially in a disaster related scenario.

Information
Preparing the community for disaster management through information implies the transfer of basic knowledge by means of data, practices and processes to the community so as to increase their awareness. It is useful for the administration and other agencies for planning purposes, and beneficial to the community for development of internal coping mechanisms.

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Information addresses the questions of What, *When, Where,* **How** and **How** *Much* with respect to the anticipated disaster.

Training

Training attempts to improve knowledge, skills and attitudes amongst the recipients. With regard to managing disasters, training is accorded a very important place, as it imparts the necessary knowledge and skills to varied categories of personnel. It improves the performance of people involved in managing the crisis. It enables them apply the knowledge and skills to situations. Training needs to be given to build, strengthen and enhance the capacities of individuals, organizations, and communities. It is necessary to have institutional support for effective training. Information Education Communication and Training activities are to be based on appropriate needs analyses. It needs to be holistic as there are several categories of personnel involved in disaster management activities. These include policy makers, government officials, specialists, technocrats, youth, NGOs, CBOs, communities etc. The training needs of these personnel differ. Accordingly, the IEC and training programmes have to be developed.

Education

Education implies learning that makes people aware and knowledgeable. Creativity addresses the values of the people in question and besides making them aware of the risks, 'it enlightens them about their issues, the actions needed to be taken and their roles, - and it also motivates them to act. Education is a continuous process throughout the human life that attempts to modify the attitudes, and behaviour of the people. Ed~~cation enlightens the people about the *'Why'* aspect as to the occurrence of disasters. It tells them what to do and what not to do for preventing or mitigating disasters. It orients them about ways of managing situations, and provides them with several alternatives. People generally have a fatalistic attitude towards disasters, wherein disasters are considered as acts of god, and demonstrate helplessness to do anything to mitigate them. Education lessens this kind of attitude by making communities aware of causes of disasters, best available alternatives and means of mitigating them and enabling them to take counter disaster measures. The ways of imparting disaster education are (dependent on the target groups. Usually, it is the low-income group communities that an: most vulnerable to disasters and need to be educated. As such, the design and contents of the educational material have to be based on these considerations, and should be acceptable, understandable, interesting and motivating for the community. While educating, communities, their traditional practices, and wisdom, existing knowledge in coping with such situation-must also be kept in mind, and integrated with the educational process. Pit tempts need to be made to make the community understand the benefits of preparedness and mitigation, the relationship between the disasters and development. The aim of education is to promote an informed, alert and self-confident community that can cope with disasters,

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Communication

Communication involves information exchange between two or more groups or individuals, It could be applied to both, education emergency communication management. In terms of disaster education and preparedness, communication is a process of knowledge transfer to the community regarding disaster- risks, preparedness and mitigation measures.

In this process, the system is of flow of information from a singular awakened source to the mass group, i.e. the community. Another manifestation of the same process **is** in times of emergency build-ups when the communication relates to hazards forecasts, at such times warnings may have to be issued to the community regarding the impending disaster in a clear understandable manner. This is a critical and final stage of pre disaster communication that gives the community a chance to take evasive action, or move away from the scene to a safer place in order to mitigate the disaster impact.

Once the disaster strikes, communication becomes an essential support system for relief as well as Search and Rescue (SAR) operations. Field teams have to be in contact with the base station or central cell. The efforts of various agencies need to be coordinated for a better and wider coverage in an efficient manner. An effective communication system facilitates various teams get to know what kind of assistance is required and in which areas. This is also useful for reaching out to the affected community with relief materials such as food, medicines and clothing. The field teams can also send back information to the base station regarding the extent and nature of additional assistance required, and the deficient areas. They should also inform about the areas covered, so that other teams may be notified not to visit the same areas again, thereby avoiding overlap. Special medical help or evacuation teams may be asked in critical situations, and valuable time could be saved in getting these if there is an on-line communication system, which would eliminate the need for physical communication of information. IEC attempts to create and strengthen the community awareness about which we shall discuss in the next section. Disaster communication management means the designing of appropriate communication strategy, procedures and contents in advance, according to the nature and objectives of the disaster, to smoothen its operations and avoid misunderstanding and other complicated problems which arise due to any communication gap. The purpose is to enlighten people likely to be affected by disaster so that timely preventive measures can be taken. Without the use of IEC activities disaster management cannot be effective.

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