

Research Paper on Disaster Management

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ABSTRACT: People have been living with risk ever since they first joint efforts, shared resources and assumed responsibilities in social groups. Social development and human wellbeing have advanced only because people have taken risk Time and again, we see the terrible toll that natural disasters inflict on vulnerable communities around the world. Over the recent decades there has been an alarming increase in the occurrence of natural disasters and the magnitude of their social, economic and environmental impacts. This extensive damage to lives, property and livelihood of the affected communities has turned back the development clock of the areas by decades.

1. INTRODUCTION

The term "Disaster management" encompasses the complete realm of disaster-related activities traditionally, people tend to think of the post disaster actions taken be relief and reconstruction officials. Yet disaster management covers a much border scope, and many modern disaster managers may find themselves far more involved in pre-disaster managers may find themselves far more involved in pre-disaster activities than in post-disaster response. This is because many person who work in the development responsibilities. For example, housing specialists planning a low-income housing project in a disaster-prone area have the opportunity to mitigate

the impact of a future disaster if the houses incorporate disaster-resistant construction technologies. In the same manner, agricultural development projects must be planned in such a way that they help stem environmental degradation, and thus lower



the farmers vulnerability to losses from droughts, floods, cyclones or other natural hazards, In fact, in dealing with natural hazards, the vast majority of disaster management activities are related to development projects; only a small portion are related to emergency response.

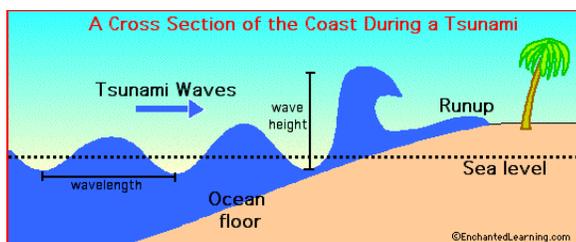
2. DEFINITION OF DISASTER MANAGEMENT

A catastrophe is a sudden calamity or tragedy that befalls a living being. Disaster is an environmental catastrophe. Disasters cause huge loss of life and financial loss to children. Disasters that change the way of life of human beings can be natural or human in nature. The

location of the disaster can be the atmosphere or the aquifer, the geology is very closely related to the disaster. Geology deals with human life. Therefore, it is important to prevent or control adverse events.

3. Tsunami –The Killer sea waves

A killer Tsunami hit 11 South Eastern Countries of Asia on the 26th of December 2004 killing more than 1,50,000 precious lives. The count hasn't stopped.... At the end of day statistics only remain. The emotional, economical and ecological toll of the disasters can't be calculated. Many villages have lost an entire generation. This was the biggest earthquake to hit the world in 40 years and no one could have thought that its effects would ripple worldwide overnight. Do you know what tsunamis are? How they can be predicted and how you can save yourself from the deadly Tsunami?



The term 'Tsunami' has been coined from the Japanese term Tsu meaning 'harbour' and name meaning 'waves'. Tsunamis are waves generated by earthquakes, volcanic eruptions, or underwater landslides and can reach 15m or more in height devastating coastal communities. In record history, Tsunamis worldwide have killed hundreds of thousands of people. Tsunamis caused by nearby earthquakes may reach the coast within minutes. When the waves enter shallow water, they may rise several feet or, in rare cases, tens of feet, striking the coast with devastating force.

The tsunami danger period can continue for many hours after a major earthquake

4. Alternative Communication Systems...during disasters

In Monsoon-2004, severe flood situations in the States of Assam and Bihar caused major devastation. Many district headquarters got totally cut-off from the State head quarter and neighboring districts due to submerged telephone exchanges or damaged cables and disrupted roads and railways communication. In the worst affected districts the need for relief and rescue operation could not be communicated to the State headquarters. Realizing this, State Government requested National Disaster Management Division of the Government of India to immediately send the emergency coordination kits containing satellite phones to establish communication links among the severely affected districts and state headquarters.

The telecommunication links have become a vital part of our daily life. Most popular means of communication is the public switched telephone, which is known as *public Switched Telephone Network (PSTN)*

Modes for Emergency Communication

4.1 Amateur (Ham) Radio

In the event of major disasters/emergencies, it has been experienced that Amateur Radios have worked successfully when no other communications worked.

Amateur radio, also known as 'Ham radio', does not refer to special kind of radio but to a special set of rules which apply to certain frequencies as defined by Wireless Planning and Coordination Wing, Ministry of Communications. The laid down rules allow these frequencies to be used only for research, education and personal purpose.



Amateur radio is getting popular in India as a creative hobby and there are around 15,000 licensed Amateur Radio Operators (Hams) in India. Amateur Radio is an unbeatable way of learning about radio communications, and not only will you learn much about you would also be able to help at the time of emergency.

4.2 Satellite Based Communication Systems.

Satellite based communication systems mean communication systems intended for users on the earth but which have some equipment in space, i.e. a satellite. Different satellites carry

out different jobs, such as taking weather pictures or finding accurate positions on earth in terms of latitudes and longitudes. Communications Satellites are essentially radio relay stations in space and are sometimes referred to as COMSATS.

The most important features of a communications satellite is the transponder – a radio that receives a conversation at one frequency and then amplifies it and re-transmits it back to Earth on another frequency. A satellite normally contains hundreds or thousand of transponders. Data, television, image and some telephone transmissions are routinely received and re-broadcasted by these transponders of communication satellites.

Present operational Indian space systems include Indian National Satellite (INSAT) for tele-communication, television broadcasting, meteorology and disaster warning and Indian Remote Sensing Satellite (IRS) for resources monitoring and management.

This mode of communication is most reliable as the radio relay stations.

Most widely used means of satellite communications in disaster management is 'satellite phone'. For these phones the satellite works as a telephone exchange. These phones provide very reliable voice and data communication and are very handy and can be transported to any locations.



Government of India is equipping the Disaster/Emergency managers in multi-hazard prone District/states with portable Satellite phones so that proper communication among the administrations at local and State level can be maintained in case the main communication lines fail.

Radio communications and satellite based communication system are highly reliable and widely used. All India radio, Doordarshan and Press Trust of India also play a key role in collecting and disseminating information

5. India – Disaster Statistics

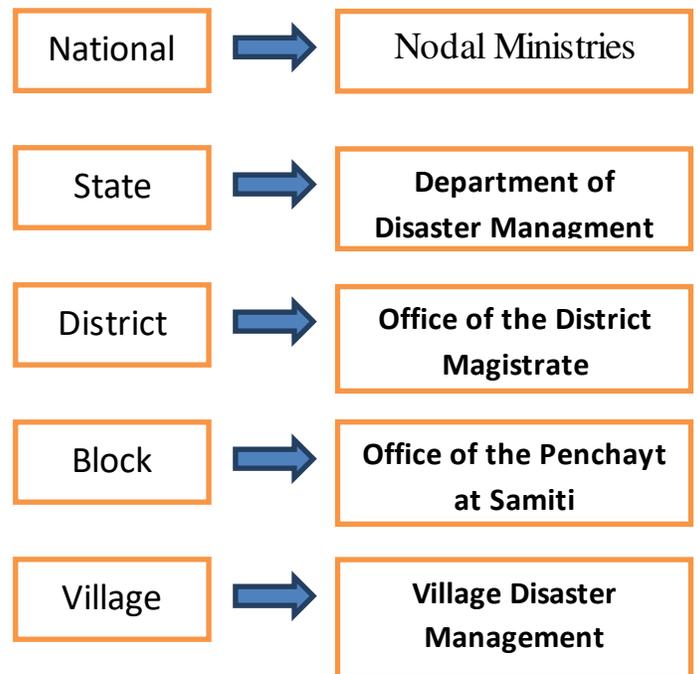
Data related to human and economic losses from disasters that have occurred between 1980 and 2010

<i>No of events:</i>	431
<i>No of people killed</i>	143,039
<i>Average killed per year</i>	4,614
<i>No of people affected:</i>	1,521,726,127
<i>Average affected per year:</i>	49,087,940
<i>Economic Damage(US\$ X 1,000):</i>	48,063,830
<i>Economic Damage per year(US\$ X 1,000):</i>	1,550,446

6. Sharing Responsibility Role of local and state Bodies

At the time of disaster various agencies both government and non-government organizations play a crucial role in preparing the society. Home Guards, Civil Defence, Volunteers of National Services Scheme, Nehru Yuva Kendra Sanghathantoo play a major role at the time of crisis. This chapter tries to understand the functions and role of these agencies in disaster management, who make the society a better place to lives.

The flow chart given below would give you a better understanding about the management of disasters at various level in our country.



7. Planning ahead by the people, for the people

Community Planning

Community planning is a forward planning process, which identifies human and material resources and puts in place potential response system. It involves active participation from the people residing in that locality in making decision about the implementation of processes, programmes and projects which is affected them.

In other words, a community plan is a list of activities a neighborhood, community or a group of people agree to follow to prevent loss of life, livelihoods and property in case of warning or a disaster. The Plan identifies in advance action to be taken by individuals, in the community so that each one knows what to do when a warning is received or when a disaster strikes. The major thrust is to address possible scenario of an event and focus on the impact the humanities preparations.

How to prepare a plan and what should a contingency plan consist of

The Contingency Planning Exercise is a forum and opportunity for all sections of the society to participate. Each has something useful to contribute to the planning. The views of one may differ from others, but this will often be to the advantages of the planning process since is thus more realistic.

- Initial awareness and rapport building

- Outlining the profit of the community
- Analyzing the situation on a participatory basis
- Selection of task forces. Indicative Responsibilities and Capacity Building of task Forces
- Rehearsals/ Mock Drills.

8. Conclusions

A disaster is any occurrence that causes damage, ecological disruption Apart loss of human lives, or deterioration of health and health service on scales sufficient to warrant an extraordinary response from outside the affected community or area. with installation of new technologies and by adopting space technologies as INMARSAT and Amateur (Ham) Radio. Basically India has developed a mechanism for disaster warning Prediction certain event likes earthquake, volcanic eruption and flood is still at experimental level.

Thus, efficient management of disasters, rather than mere response to their occurrence has in recent times

The Department of Telephone Operations, Government of India became a corporation on October 1, 2000 and was christened Bharat Sanchar Nigam Limited (BSNL).

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