

DISASTER MANAGEMENT: MANAGING THE RISK OF ENVIRONMENTAL CALAMITY

*Mandeep Singh

**Dr. Balveer

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Corresponding Author: Mandeep Singh; Email: ambrellanexus@gmail.com; doi:10.46360/Cosmos.ahc.xxxxxxxx

Abstract

All communities and countries are vulnerable to disasters, both natural and man-made. India's geo-climatic conditions as well as its high degree of socio-economic openness, makes it one of the most disaster prone country in the world to suffer very often from various natural disasters, namely drought, flood, cyclone, earth quake, landslide, forest fire, hail storm, locust, volcanic eruption, etc. Which strike causing a devastating impact on human life, economy and environment? Various disasters like earthquake, landslides, volcanic eruptions, fires, flood and cyclones are natural hazards that kill thousands of people and destroy billions of dollars of habitat and property each year. The rapid growth of the world's population and its increased concentration often in hazardous environment has escalated both the frequency and severity of natural disasters. With the tropical climate and unstable land forms, coupled with deforestation, unplanned growth proliferation non-engineered constructions which make the disaster-prone areas mere vulnerable, tardy communication, poor or no budgetary allocation for disaster prevention, developing countries suffer more or less chronically by natural disasters. Asia tops the list of casualties due to natural disaster. Among various natural hazards, earthquakes, landslides, floods and cyclones are the major disasters adversely affecting very large areas and population in the Indian sub-continent. The perception about disaster and its management has undergone a change following the enactment of the Disaster Management Act, 2005.

Keywords: Disaster Management.

Introduction

Disaster management is the control of managing and maintaining a strategic distance from both common and synthetic disasters. It includes readiness, reaction and recuperation so as to diminish the effect of disasters. All parts of emergency management manage the procedures used to shield populaces or associations from the results of disasters, wars and demonstrations of psychological oppression. Disaster management doesn't really deflect or dispense with the dangers themselves, in spite of the fact that the examination and forecast of the dangers is a significant piece of the field. The essential degrees of emergency management are the different sorts of search and salvage action. Disaster management can be characterized as the association and management of assets and obligations regarding managing every single helpful part of crises, specifically readiness, reaction and recuperation so as to decrease the effect of disasters. The entire cycle of Disaster Management can be portrayed by following figure 1.1.



Figure 1.1: Etymology

The word 'Disaster' gets from Middle French disasters and that from Old Italian disastro, which thus originates from the Greek pejorative prefix δυσ-, (dus-) "bad"+ αστήρ (aster), "star". The base of the word disaster ("awful star" in Greek and Latin) originates from a mysterious topic wherein the people of yore used to allude to the demolition or deconstruction of a star as a disaster.

Definition of Disaster Management

Disaster is an event or series of events, which gives rise to casualties and damage or loss of properties, infrastructures, environment, essential services or

*Research Scholar, Sunrise University, Alwar, Rajasthan.

**Research Supervisor, Sunrise University, Alwar, Rajasthan.

means of livelihood on such a scale which is beyond the normal capacity of the affected community to cope with. Disaster is also sometimes described as a “catastrophic situation in which the normal pattern of life or eco-system has been disrupted and extraordinary emergency interventions are required to save and preserve lives and or the environment”.

Types of Disasters

There is no country that is immune from disaster, though vulnerability to disaster varies. There are four main types of disaster.

- **Natural disasters**
These disasters include floods, hurricanes, earthquakes and volcano eruptions that can have immediate impacts on human health, as well as secondary impacts causing further death and suffering from floods causing landslides, earthquakes resulting in fires, tsunamis causing widespread flooding and typhoons sinking ferries.
- **Environmental Emergencies**
These emergencies include technological or industrial accidents, usually involving hazardous material, and occur where these materials are produced, used or transported. Large forest fires are generally included in this definition because they tend to be caused by humans.
- **Complex Emergencies**
These emergencies involve a break-down of authority, looting and attacks on strategic installations. Complex emergencies include conflict situations and war.
- **Man-made Disaster**
Disasters caused by chemical or industrial accidents, environmental pollution, transport accidents and political unrest are classified as “human-made” or “human-induced” disasters since they are the direct result of human action.

Institutional and Legal Arrangements of Disaster Management

The Act sets down institutional, legitimate, money related and coordination mechanisms at the national, state, area and neighborhood levels. These foundations are not parallel structures and will work in close concordance.

- **National Disaster Management Authority (NDMA)**
The NDMA, as the peak body for disaster management, is going by the Prime Minister and has the obligation regarding setting down strategies, plans and rules for DM (and planning their requirement and usage for guaranteeing opportune and successful reaction to disasters). It will favor the National Disaster Management and DM plans of the Central Ministries/Departments.

- **The National Executive Committee**
The National Executive Committee (NEC) includes the Union Home Secretary as the Chairperson, and the Secretaries to the GOI in the Ministries/Departments of Agriculture, Atomic Energy, Defense, Drinking Water Supply, Environment and Forests, Finance (Expenditure), Health, Power, Rural Development, Science and Technology, Space, Telecommunications, Urban Development, Water Resources and the Chief of the Integrated Defense Staff of the Chiefs of Staff Committee as individuals.
- **State Disaster Management Authority (SDMA)**
At the State level, the SDMA, headed by the Chief Minister, will set down strategies and plans for DM in the State. It will, entomb alia favor the State Plan as per the rules set somewhere near the NDMA, facilitate the usage of the State Plan.
- **District Disaster Management Authority (DDMA)**
The DDMA will be going by the District Collector, Deputy Commissioner or District Magistrate by and large, with the chosen agent of the nearby authority as the Co-Chairperson. DDMA will go about as the arranging, organizing and actualizing body for DM at District level and take every single important measure for the reasons for DM as per the rules set somewhere around the NDMA and SDMA.

The Indian Scenario for Disaster Management

India due to its geo-climatic and socio-economic condition is prone to various disasters. During the last thirty years’ time span the country has been hit by 431 major disasters resulting into enormous loss to life and property. According to the Prevention Web statistics, 143039 people were killed and about 150 crore were affected by various disasters in the country during these three decades. The disasters caused huge loss to property and other infrastructures costing more than US \$ 4800 crore. In India, the cyclone which occurred on 25th November, 1839 had a death toll of three lakh people. The Bhuj earthquake of 2001 in Gujarat and the Super Cyclone of Orissa on 29th October, 1999 are still fresh in the memory of most Indians and cloud burst and mudflow in Leh and surrounding areas in the morning of 6th August, 2010.

International Organizations of Disaster Management

1. **International Association of Emergency Managers**

The International Association of Emergency Managers (IAEM) is a non-profit educational organization dedicated to promoting the goals of saving lives and protecting property during emergencies and disasters. The mission of IAEM is to serve its members by providing information, networking and professional opportunities, and to advance the emergency management profession.

2. **International Recovery Platform**

The International Recovery Platform (IRP) was conceived at the World Conference on Disaster Reduction (WCDR) in Kobe, Hyogo, Japan in January 2005. As a thematic platform of the International Strategy for Disaster Reduction (ISDR) system, IRP is a key pillar for the implementation of the Hyogo Framework for Action (HFA) 2005–2015: Building the Resilience of Nations and Communities to Disasters, a global plan for disaster risk reduction for the decade adopted by 168 governments at the WCDR.

3. **Red Cross/Red Crescent**

National Red Cross/Red Crescent social orders frequently have urgent jobs in reacting to crises. Also, the International Federation of Red Cross and Red Crescent Societies (IFRC or "The Federation") may convey evaluation groups, for example Field Assessment and Coordination Team – (FACT) to the influenced nation whenever mentioned by the national Red Cross or Red Crescent Society.

4. **European Union**

Since 2001, the EU embraced Community Mechanism for Civil Protection, which began to assume a critical job on the worldwide scene. Component's fundamental job is to encourage participation in common security help intercessions in case of significant crises which may require critical reaction activities. This applies additionally to circumstances where there might be an up and coming risk of such significant crises.

5. **United Nations**

Inside the United Nations framework duty regarding crisis reaction rests with the Resident Coordinator inside the influenced nation. Be that as it may, practically speaking international reaction will be composed, whenever mentioned by the influenced nation's legislature, by the UN Office for the Coordination of Humanitarian Affairs (UN-OCHA), by conveying an UN Disaster Assessment and Coordination (UNDAC) group.

6. **India**

The job of crisis management in India tumbles to National Disaster Management Authority of India, an administration office subordinate to the Ministry of Home Affairs. As of late there has been a move in accentuation from reaction and recuperation to key hazard management and reduction and from an administration centered way to deal with decentralized network interest. The Ministry of Science and Technology, headed by Dr Karan Rawat, underpins an inside organization that encourages inquire about by bringing the scholastic information and aptitude of earth researchers to crisis management.

Conclusion

Apart from loss of human lives, natural disasters inflict severe damage to ecology and economy of a region. With installation of new technologies and by adopting space technology as INSAT and IRS series of satellites, India has developed an operational mechanism for disaster warning especially cyclone and drought, and their monitoring and mitigation. However, prediction of certain events likes earthquake, volcanic eruption and flood is still at experimental level. Disasters disrupt progress and destroy the hard-earned fruits of painstaking developmental efforts, often pushing nations, in quest for progress, back by several decades. Thus, efficient management of disasters, rather than mere response to their occurrence has, in recent times, received increased attention both within India and abroad. This is as much a result of the recognition of the increasing frequency and intensity of disasters as it is an acknowledgement that good governance, in a caring and civilized society, needs to deal effectively with the devastating impact of disasters.

References

1. Final report on study of Brahmaputra river erosion and its control study conducted by Department of Water Resources Development and Management Indian Institute of Technology Roorkee for National Disaster Management Authority of India May 2012.
2. Shukla, S. (2013). Disaster Management. International Journal of Scientific Engineering and Research (IJSER), 1(1), September 2013.
3. Technical report on Geotechnical / Geophysical Investigations for Seismic Microzonation Studies of Urban Centers in India by National Disaster Management Authority Government of India August 2011.