



The Status of Management of Disasters in India

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Abstract: India is one of the risk inclined global places in the region of South Asia. Floods, Cyclones, droughts, landslides, and hurricanes take this region regularly. Among those earthquakes, floods and cyclone risk are particularly high. These risks threaten hundreds and hundreds of lives and purpose huge scale financial, infrastructure, agriculture and productivity losses that seriously limitation India's everyday development. Disaster management occupies a vital place in this country's policy framework as it is the poor and the under-privileged who are worst affected on account of calamities. The Government of India has a countrywide emergency format for disaster management; some of the country additionally has a catastrophe administration plan. It can be, and is referred to as upon to help when necessary, however there is a lack of attention in the public. Many Indian States have restricted assets and lack their personal catastrophe administration plans. Considering these problems, this paper tries to explore the disaster management system, status and change in approach in last over half century after independence.

Index Terms: disaster, mitigation, hazards, risk, safety management, India, Deoghar, Jharkhand, cyclones, floods, NDMA.

I. INTRODUCTION

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. In the last two decade i.e. 2000-2020; an average of about 80,000 people lost their lives and about 108 crore people were affected in 321 incidences of natural disasters in India as per the report by United Nations Office for Disaster Risk Reduction.

The National Disaster Management Authority (NDMA) is the apex body for Disaster Management in India. Setting up of NDMA and the creation of an enabling environment for institutional mechanisms at the State and District levels is mandated by the Disaster Management Act, 2005.

India is a large country vulnerable to number of natural and manmade disasters. 58.6% of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12%) is prone to floods and river erosion; of the 7,516 km long coastline, close to 5,700 km is prone to cyclones and tsunamis; 68 per cent of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches (NDMA, 2009). Vulnerability to disasters/emergencies of Chemical, Biological, Radiological and Nuclear (CBRN) origin also exists (NDMA, 2009). Super cyclone in Orissa in 1999, devastating earthquake in Gujarat in 2001, and Tsunami in Indian coasts in 2004 has changed the disaster management system in India for ever. The 're-active approach' to disaster changed to 'pro-active approach'. It is realized that the investment on preparedness, prevention and mitigation is more cost effective compared to expenditure on relief and rehabilitation alone.

A disaster is a result of natural or man-made causes that leads to sudden disruption of normal life, causing severe damage to life and property to an extent those available social and economic protection mechanisms are inadequate to cope.

The above definition identifies an event that includes three elements:

1. Suddenness
2. Unexpectedness
3. Significant destruction and/or adverse consequences

However, a fourth element, lack of foresight or planning, is once in a while added. Disasters show up with unnerving frequency. Their damaging penalties make bigger for these who do now not put together for predictable contingencies. A catastrophe prevention and recuperation layout can assist guard all of the University's property which include people, jobs, records, crucial records, and facilities.

II. CLASSIFICATION OF DISASTERS

Disasters are classified as per origin, into natural and man-made disasters. As per severity, disasters are classified as minor or major (in impact). However, such classifications are more academic than real as major disasters could simply be events that received relatively more media coverage (Parasuraman and Unnikrishnan, 2005).

High Powered Committee (HPC) was constituted in August 1999 under the chairmanship of J.C.Pant. The mandate of the HPC was to prepare comprehensive model plans for disaster management at the national, state and district levels. This was the first attempt in India towards a systematic comprehensive and holistic look at all disasters. Thirty odd disasters have been identified by the HPC, which were grouped into the following five categories, based on generic considerations:

<p>Water and Climate Disaster</p> <ul style="list-style-type: none"> • Floods • Cyclones and Sea erosion • Hailstorms • Cloudburst • Heat wave and cold wave • Snow avalanches • Droughts • Thunder/ lightning 	<p>Geological Disaster</p> <ul style="list-style-type: none"> • Landslides and mudflows • Earthquakes • Large fires • Dam failures and dam bursts • Mine fires
<p>Biological Disaster</p> <ul style="list-style-type: none"> • Epidemics • Pest attacks • Cattle epidemics • Food poisoning 	<p>Chemical, Industrial and Nuclear Disaster</p> <ul style="list-style-type: none"> • Chemical and Industrial disasters • Nuclear

III. OVERVIEW OF DISASTER MANAGEMENT

The Indian subcontinent is highly vulnerable to natural disasters occur frequently in the Himalayan region. Among the States/ Union Territories in the country, 25 are disaster prone. On an average, about 50 million people in the country are affected by one or more disasters every year, besides loss of property worth several millions India's big measurement and several panoramas make it at risk of a extensive style of natural as well as synthetic disasters. The natural disasters directly affect economies, health, agriculture, food security, water and sanitation every year. Different natural hazards because varying levels of physical damage to infrastructure and agriculture with implications for their indirect impacts. In the last two decade i.e. 2000-2020; an average of about 80,000 people lost their lives and about 108 crore people were affected in 321 incidences of natural disasters in India.

Most of us will remember the year 2020 for the Corona-Virus pandemic. But while the pandemic put an end to our life as humans, nature was uncontrollable.

In the midst of the pandemic, India endured cyclones, floods, rain, plagues from the Bible, and industrial catastrophes.

The following disasters India endured in 2020:

1. Assam Flood
2. Kerala Flood
3. Hyderabad Flood
4. Locust Attack
5. Cyclone Nisarga
6. Cyclone Nivar
7. Cyclone Burevi
8. Oil and Gas Leak in Assam

III. (A). Disaster Management in India: Vulnerability Profile

India is susceptible to numerous disasters to varied degrees. Earthquakes of moderate to very high strength can occur on about 59% of the planet's landmass. Over 40 million hectares, or about 12 percent, of its land is vulnerable to flooding and river erosion. Out of the 7,516 km of coastline, about 5,700 km are vulnerable to cyclones and tsunamis. Droughts might affect 68% of its arable land, while landslides and avalanches could occur in the hilly regions. Additionally, India is susceptible to various man-made disasters as well as CBRN events.

Increased vulnerabilities brought on by shifting demographics and socioeconomic situations, unplanned urbanization, development in high-risk areas, environmental degradation, climate change, geological hazards, epidemics, and pandemics all contribute to the increased risk of disaster in India.

All of these factors undoubtedly have a role in the tremendous threat that disasters pose to India's economy, people, and sustainable development.

III. (B). Disaster Management in India: the past scenario

In the past, the information of disaster management in India became as soon as restrained to the taking into consideration submit incident management or calamity relief. It became as soon as in reality a non graph item of expenditure within side the Government. A gives used to accept to the states for consolation paintings through the Calamity Relief Fund (CRF) and the National Calamity Contingency Fund (NCCF). CRF used for use to deliver immediately comfort to sufferers of cyclone, drought, earthquake, fire, flood and hailstorms. Restoration of damaged capital works was once typically executed thru normal budgetary heads, without while the expenditure was once incurred as phase of on the spontaneous consolation along with recuperation of ingesting water sources, provision of shelters or recuperation of conversation links for facilitating treatment operations.

India has experienced many natural disasters, be it the Odisha super cyclone (1999) or the Gujarat earthquake (2001) or even the Indian Ocean tsunami (2004). In the next article, we have compiled a list of the 7 worst natural disasters in Indian history.

A natural disaster is a natural event that causes enormous damage to property or loss of human life. Natural disasters have a sad history in India and elsewhere around the world. Now, with the spread of climate change and rising temperatures, the Earth is more susceptible to them. As in the previous year, we have seen many disasters. In the article below, take a look at the greatest fatal natural disasters in Indian history. Examples of natural disasters: volcano, flood, tsunami and earthquakes, hurricane or cyclone, etc.

The following are the Deadliest Natural Disasters in India:

1. Kashmir Floods disaster, 2014(**Number of deaths:** 550+)
2. Uttarakhand Flash Floods, 2013(**Number of deaths:** 5,700 plus)
3. Bihar flood disaster 2007(**Number of deaths:** About 1,287 peoples and thousands of livestock lost their life)
4. The Indian Ocean Tsunami 2004(**Number of deaths:** 2.30 lac)
5. Gujarat Earthquake, 2001 (**The number of deaths:** Around 20,000, injured 167,000 and nearly 400,000 became homeless).
6. Super Cyclone, Odisha 1999(**Number of deaths:** Around 15,000+)
7. Great Bengal Famine 1770 (**Number of deaths:** Around 1 crore)

III. (C). Disaster Management in India: the present scenario

India's inner control of failures has stepped forward and our contribution to worldwide comfort has additionally been full-size within side the beyond decade.

Bidanda Chengappa, Secretary, Institute for Contemporary Studies Bangalore and former research fellow at MP-Institute for Defense Studies & Analyses, New Delhi said that India's serious foray into Disaster Management began in 2005 with the passing of the Disaster Management Act.

Ever since India's internal management of disasters has improved considerably and contribution to global relief has also been significant, he said.

He was speaking recently on 'Humanitarian Assistance and Disaster Relief: The Indian Experience' at the School of Military Affairs, Strategy and Logistics (SMASL) at Rashtriya Raksha University, Gujarat.

But, till date, 'India is not completely ready to handle the Disasters, properly'. The recently happened Jharkhand ropeway accident at deoghar stamps on the statement. In this accident, three people died and about 70 others were left dangling mid-air for almost three days as cable cars of ropeway in Jharkhand's Deogarh collided with each other on Sunday (April 10, 2022). The stranded people were rescued following a daring operation involving the Army, IAF, ITBP, NDRF and other forces.

Taking Suo motu cognizance of the tragedy, the Jharkhand High Court has asked the state government to submit a report by April 25. On the other hand, Chief Minister has said that a high-level inquiry would be initiated in the incident. CM has been facing the opposition's flak for the handling of the Deogarh accident that made national, international headlines.

But who is to be blamed for the incident? Who will take the responsibility of three deaths and endangering lives of dozens of others? Probably, no one!

Terming the ropeway accident as 'rare and unfortunate', the state tourism development corporation has that the company - Damodar Ropeway and Infra Limited (DRIL) - hired to operate the system had negligible record of slip-ups or lapses, and the contract was given to them after a performance assessment.

Alok Prasad, the general manager of Jharkhand tourism development corporation (JTDC), said that the state had maintained the ropeway, constructed by DRIL in 2007 over Tirkut hills, for two years before handing over its operations to the company.

"It was India's only company which had negligible record of untoward incidents. DRIL operates ropeways in around 40 places of India," he said. "The Tirkut hill ropeway started its operations only in 2009 as it took time to get a technical clearance. For two years, the JTDC ran the ropeway before handing over its operations to DRIL," Prasad stated. Locals in Deogarh claimed that lack of maintenance and overloading of cable cars could have led to the accident.

In the response of the question – What about backup plan? he said, "There is a service rope to rescue people if trolleys get stuck. However, in this incident; the service rope could not be used." Service rope is an additional cord used for maintenance work. It is also used to rescue passengers with the help of harness in case a cable car gets stuck in between. Operational rope is the one that is used to ferry the cable cars.

In this case, according to Prasad, the service rope could not be used as the operational rope sagged owing to the weight of the stranded cable cars, thus increasing the gap between the two. According to the Jharkhand Tourism department, the Tirkut ropeway, close to Baba Baidyanath temple, is India's highest vertical ropeway. It is around 766-metres-long.

IV. CONCLUSION: Future of Disaster Management in India

There is a growing consensus that the important thing to achieving sustained cut price in disaster losses lies in factoring hazard issues into development activities. Managing risks ought to grow to be a ability of reducing destiny disaster risks via 'corrective' development making plans. Through measures together with land use making plans, building controls and others it have to be ensured that development enterprise does not generate new risks. Mainstreaming disaster control into the improvement making plans way in reality ability looking severely at each exercising this is being planned, not entirely from the perspective of lowering the disaster vulnerability of that activity, but moreover from the standpoint of minimizing that activity's practicable contribution to the hazard. The Eleventh Five Year Plan (2007-12) has given impetus to programmes that beautify and nurture the lifestyle of safety and integrate disaster prevention and mitigation into the development process. Even the fantastic of isolated efforts will not undergo fruit besides they're segment of an overall, well appeared approach, the location duties for all stakeholders are actually spelt out and duty and sustainability factored in.

REFERENCES:

- [1] Disruptive technologies and their use in disaster risk reduction and management
- [2] Guha-Sapir D, Hoyois Ph and Below R 2014 Annual Disaster Statistical Review 2013: The Numbers and Trends Brussels: CRED
- [3] www.indiatvnews.com
- [4] www.economictimes.indiatimes.com
- [5] www.thehindu.com
- [6] National Policy on Disaster Management NDMA 2009
- [7] MHA Disaster Management in India Ministry of Home Affairs Report 2011
- [8] Increasing Safety and Robustness in Traffic Controlling Circumstances Using WSN” **IJCRT**, Vol. 6 | Issue 1, Jan 2018, ISSN 2320-2882, pp. 16-21.
- [9] “Survey on Tools & Technologies used in Semantic web and IOT” **IJCRT**, Vol. 6 | Issue 2, June 2018, ISSN2320-2882,pp. 302-306.
- [10] “Security Aspects in Social Networking Model “**IJCRT**, UGC Approved, Vol.6| Issue 1, Jan 2018, ISSN 2320-2882.
- [11] “Cyber Security Issues and Challenges in India” Journal of Emerging Technologies and Innovative Research (JETIR), Vol. 9, 2022, ISSN 2349- 5162, pp. b102- b110
- [12] https://geographyandyou.com/disaster-management-in-india
- [13] www.groupdiscussionideas.com/disaster-management-in-india