

The Role of Organizations and Employee Engagement in Disaster Management in the Context of Natural Disasters

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Abstract: *Disaster prevention may mean different things to different individuals depending on their field of study. To lessen the severity of; alleviate the burden of; moderate is the definition of the word mitigate. As a result, preventative measures may be planned as if they would be implemented after the fact. catastrophe mitigation, on the other hand, is defined as "Measures taken in advance of a disaster with the aim of decreasing or eliminating its impact on social and environmental systems" in a globally agreed upon multilingual vocabulary.*

The Indian government recognizes the need of including preventative measures and damage control into its growth plans. The disaster management strategy is laid out in great detail in the Ten Year Plan document. The plan stresses the need of incorporating mitigating measures into the development process in order to ensure long-term sustainability. Each state is responsible for developing its own disaster preparedness strategy in conformity with the framework laid forth in the plan. To sum up, mitigating measures are increasingly becoming standard in the development planning process. The Finance Commission suggests how money should be distributed between the federal government and the states, as well as how much should be spent on humanitarian aid. The sections highlight the gaps in preparedness and catastrophe prevention strategies.

(Key Words- Manage, lessen, prevent, and alleviate disasters.)

Introduction

Floods, droughts, earthquakes, and tsunamis are all examples of natural disasters that may have a significant negative impact on human life. These trigger fatalities, material losses, and societal and economic upheaval. Due to population and resource growth, these types of losses have worsened with time. The consequences of natural catastrophes on people and the environment are worsening. Reasons include environmental deterioration and perhaps global climate change, as well as rapid population expansion and density, migration, and unplanned urbanization. Political strategies for addressing the idea of risk have evolved in contemporary cultures due to the magnitude of social and economic

repercussions from natural catastrophes. The number of victims of natural and man-made catastrophes during the previous two decades is compared. Natural catastrophes come in many forms in India. The following are examples of frequent natural disasters that may strike anywhere in the United States. Droughts-Drought is perhaps the manifestation of desertification, which may be due to unprecedented soil erosion, widespread deforestation, abrupt changes in micro-climate, increasing temperatures and decreasing rainfall, etc., ultimately leading to fall of groundwater level and hence, loss of agricultural productivity of the land, due to lack of water resources. Droughts are a

recurrent occurrence in India because much of the country's agriculture relies on rainwater. When there is a lot of rain in the catchments of rivers, particularly during the monsoon, and no dam to hold back the water, the rivers will flood. Similar to the prevalence of drought, floods may happen anywhere in the nation. The nation is prone to earthquakes because its geological formations are part of the younger, more ephemeral Gondwana landmass. There are still several areas in the nation that are considered to be earthquake hotspots. There are numerous devastating examples that may be drawn from history. earthquakes had shacked the backbone of the country; the recent one is being the earthquake of Bhuj at the state of Gujarat. The great Himalayan Mountain range, which belongs to comparatively the younger geological formations, which is still undergoing morphological changes, the construction of Tehri Dam, therefore, is a great-threat to the Garhwal region of the Himalayas.

Cyclone-Due to low pressure in the atmosphere and frequent formation of whirls; cyclones take place frequently at the eastern coast of India. In the Bay of Bengal of Indian Ocean, these Low-pressure Whirls are formed and gets transmitted to the coastal districts of Andhra Pradesh and Orissa. The recent super-cyclone at Orissa in October, 1999 took away the life of more than 25,000

people, destroyed the properties of more than thousands billion dollars and more than a millions of people rendered jobless. Their livelihood security of the common mass was also got severely threatened

Hot waves-In recent days, India has got highly affected by a new form of natural calamities i.e flowing of hot waves again in the east coast, killing the thousands of people in the Northern and Eastern parts of the country like, Uttar Pradesh, Bihar, Rajasthan, Gujarat, Orissa and Andhra Pradesh. The flow of hot waves is also known as ‘Sun-stroke,’ which in fact, is common in our country. In Orissa, alone about 151 people died of “ Sun-stock “ in 1999. The worst sufferers are physically weaker persons, Old men and women and the children.

Cold Waves-The incidents of death due to cold waves occur in higher and lesser Himalayas especially in the States of Uttaranchal, Sikkim, Himachal Pradesh and Northern Parts of West Bengal including Darjiling. In addition, there are also other natural calamities such as Tornado, Spiral tide Whirls etc, which occur very often in our country.

India’s Deadliest Disasters

Sr. No	Disaster	Impact
1.	29th October 1971, Orissa	Cyclone and tidal waves killed 10,000 people
2.	19th November, 1977, Andhra Pradesh	Cyclone and tidal waves killed 20,000
3.	29th and 30th October 1999, Orissa	Cyclone and tidal waves killed 9,000 and 18 million people were affected
	Earthquake	
1.	20th October 1991 Uttarkashi	An earthquake of magnitude 6.6 killed 723 people
2.	30th September 1993 Latur	Approximately 8000 people died and there was a heavy loss to infrastructure
3.	26th January, 2001, Bhuj, Gujarat	More than 10,000 dead and heavy loss to infrastructure

Landslide		
1.	July 1991, Assam	300 people killed, heavy loss to roads and infrastructure
2.	18th August 1998, Malpa	210 people killed. Villages were washed away
Flood		
1.	1978 Floods in North East India	3,800 people killed and heavy loss to property.
2.	1994 Floods in Assam, Arunachal Pradesh, Jammu and Kashmir, Himachal Pradesh, Panjab, Uttar Pradesh, Goa, Kerala and Gujarat	More than 2000 people killed and thousands affected
3.	18 June 2013 Floods in Kedarnath, Uttarakhand	More than 5700 people were presumed dead

DISASTER MITIGATION

The objectives of disaster prevention and mitigation are to minimize the following:-

- i. Loss of life
- ii. Damage to property
- iii. Economic disruption

All aspects of prevention of disasters will significantly contribute to reducing the effects of disasters on occurrence. The responsiveness at all levels of society and administration would decide the effectiveness of disasters mitigation.

Mitigation measures would include the following:-

Approach to Disaster Management

Till recently, the approach to Disaster Management has been reactive and relief centric. A paradigm shift has now taken place at the national level from the relief centric syndrome to holistic and integrated approach with emphasis on prevention, mitigation and preparedness. These efforts are aimed to conserve developmental gains as also minimize losses to lives,

livelihood and property. A typical Disaster Management continuum as shown below, comprising of six elements i.e., Prevention, Mitigation and Preparedness in pre-disaster phase, and Response, Rehabilitation and Reconstruction in post-disaster phase, defines the complete approach to Disaster Management



Pre-Emergency Phase

The emphasis in the pre-emergency phase is on reducing the vulnerability of communities to suffer from the impact of natural phenomena. Measures to achieve this objective include risk-
 2 An often used definition of 'local' – particularly by FAO – is that provided in the 1980s by N.Uphoff.

Prevention

Includes all measures aimed at avoiding that natural phenomena turn into disasters for settlements, economies and the infrastructures of communities.

Mitigation

Involves measures taken to limit the adverse impact of natural hazards and related environmental and technological disasters. Examples of mitigation are the retrofitting of buildings or the installation of flood-control dams, and specific legislation.

Preparedness

Involves measures taken to ensure effective response to the impact of disasters. Preparedness measures include, for example, evacuation plans, early warning systems, pre-stocking of relief items – all being part of a national disaster relief plan.

Emergency Phase

In the emergency phase of a natural disaster, response mechanisms are automated. This phase is normally short-lived and may be over within days or weeks.

Post-Emergency Phase

The transition from relief to rehabilitation is rarely clear-cut. On the one hand, the foundations of recovery and reconstruction

are usually laid in the immediate aftermath of a major disaster, while emergency response activities are still ongoing. On the other hand, there is often, in the aftermath

of a natural disaster, a phase when basic needs must still be met as the long-term benefits of rehabilitation and reconstruction projects have not yet been fully realized. As a result, the phasing-out of relief assistance must be managed carefully.

Response

Involves measures taken immediately prior to and following the disaster impact. Response measures are directed towards saving life and protecting property. They deal with the immediate disruption caused by the disaster. They include search and rescue, and the provision of emergency food, shelter, medical assistance. The effectiveness of responding to disasters largely depends on the level of preparedness

Recovery

Is the process by which communities are assisted in returning to their proper level of functioning? The recovery process can be very protracted, in some cases up to a decade or more. Typical activities undertaken under this phase include: restoration of essential services and installations, and long-term measures of reconstruction, including the replacement of buildings and infrastructure that have been destroyed by the disaster.

Development

Its inclusion in the disaster cycle is

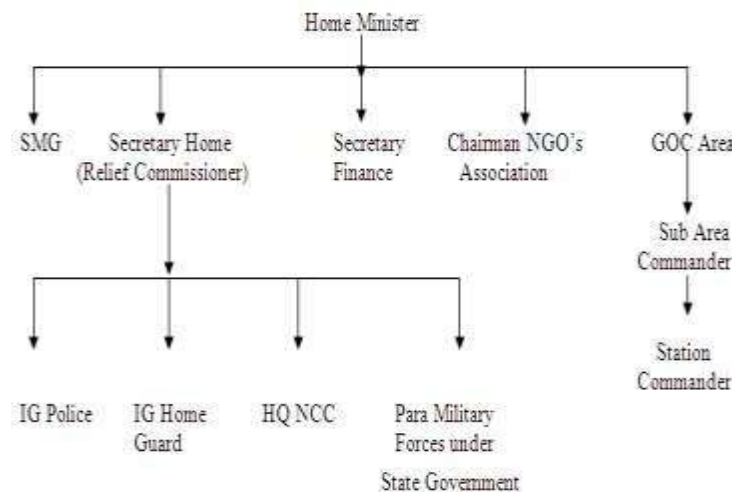
intended to ensure that following the natural disaster, countries factor hazard and vulnerability considerations into their development policies and plans, in the interest of national progress.

The rationale behind the use of the expression 'disaster management cycle' is that disaster and

its management is a continuum of inter-linked activities. Yet, the expression is slightly deceiving in that it suggests that the periodic occurrence of natural disasters is something inevitable, always requiring the same response. On the contrary, if effective prevention and preparedness measures are implemented, natural disasters may be avoided by limiting the adverse impact of inevitable natural phenomena.

Disaster Mitigation Organization

Various organizations for interaction, decision making and communication already exist at the centre and state level. The department of agriculture and cooperation (DAC) in ministry of agriculture, government of India is the nodal department for all the matters



Identification of the other resources required and ensuring their availability in time is a vital aspect of disaster management. These resources would vary depending on the type of disaster as also the area for which they are required.

concerning natural disaster relief. The national contingency action plane (CAP) facilitates launching of relief and rescue operation. There are various commits and groups for disaster management and for implementation of relief measures at the national level such as the national crises management committee (NCCMC) and the crisis management group.

The essential components of any effective disasters management organization would comprise the following:-

- i. The state machinery
- ii. The armed forces
- iii. Non government organizations

Experience has shown that the state machinery for disaster management is neither complete nor effective. On the hand the armed forces and the NGO's have played a significant role in disaster mitigation, relief operation and rehabilitation efforts. The armed forces with their disciplined manpower and available resources are well equipped to mitigate the effects of disasters and Manpower resources for disaster management would be available from state machinery, Armed forces, NGO's and volunteers.

Some of the resources that would required are as follows:-

- i. Stores for flood relief.
- ii. Earth moving plant.
- iii. Mobile hospitals and operation theatres.
- iv. Transport for evacuation and carriage of relief stores.

- v. Tents and prefabricated shelters.
- vi. Relief stores (food, water, shelters).

Conclusion

The frequency or severity of natural disasters is not expected to reduce anytime soon. While certain geological processes may occur without of human influence, evidence suggests otherwise. The fast expansion of technological dangers is a potential outcome of the unchecked industrialization of most nations and the potential usage of dangerous chemicals suitable for use in weapons against civilian populations. There should not be a proportional rise in the ensuing health burden as the number of dangers increases. Consistent work is required to lessen risk by strengthening defenses and decreasing exposure via preventive and mitigation.

A Strategic Approach- A developing nation's number one priority is, of course, development. Disasters and other emergencies have proved to be significant roadblocks on the way to sustainable development. The inadequacies of development programs and institutions, on the other hand, lessen the health response's impact during emergencies. Management of catastrophe risk is an integral part of development efforts. Countries with weak economies and healthcare systems must prioritize risk reduction above other priorities. This should be a top concern for everyone's health.

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