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35

Man-Made Disaster Causes and Solution

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Abstract

Main objective of this paper that how created disaster by man-made causes and their solution. Disaster are two types one is natural other is man-made. natural and man-made disasters significantly impact the environment and socio-economic structures. We control to man-made disaster, If fallow some precaution like public awareness, This paper completely study on secondary data.

Key words: Disaster, Natural disaster, Man-made disaster, Causes, solution.

Introduction

Disaster is an event or series of events, which gives rise to casualties and damage or loss of properties, infrastructures, environment, essential services or 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 extra-ordinary emergency interventions are required to save and preserve lives and or the environment".

The Disaster Management Act, 2005 defines disaster as "a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area".

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.

Natural disaster

A natural disaster is described as a major event caused by Earth's natural processes that result in significant environmental harm and loss of life. The term natural has consequently been disputed because the events simply are not hazards or disasters without human involvement. Different types of natural disasters can be:

Tsunamis, Earthquakes, Avalanches. Volcanoes, Landslides, Floods, Droughts, Forest fires.

Man-made disasters

Human-induced disasters are very dangerous catastrophes caused by humans. They are caused by human activity. The following are the examples:

Chemical spills, hazardous material spills, explosives, chemical or biological attacks, nuclear blasts, rail accidents, airline crashes, or groundwater poisoning are all instances of man-made disasters.

Natural and man-made disasters significantly impact the environment and socio-economic structures. It includes droughts, desertification, floods, landslides, wildfires, earthquakes, tsunamis or cyclones. The dispersion of radioactive gases in the atmosphere, or technological accidents - like oil plants or gas pipelines damaged by a natural hazard and releasing hazardous materials or gases - can also be accounted for.

All these have significant social, environmental and economic impacts which need to be measured to effectively support response strategies and mitigation and adaptation measures.

Man-made disasters in India are caused by human activities and can include:

Industrial accidents: Chemical spills, explosions, fires, and toxic gas releases from factories and refineries can cause massive destruction and loss of life.

Transportation accidents: Rail accidents and airline crashes are examples of man-made disasters.

Wars and terrorism: These are also causes of man-made disasters.

Some ways to prepare for man-made disasters include:

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Artificial causes of disaster

Chemical spills, hazardous material spills, explosives, chemical or biological attacks, nuclear blasts, rail accidents, airline crashes, or groundwater poisoning are all instances of man-made disasters. Human history is riddled with man-made disasters, from nuclear meltdowns and underwater oil spills to chemical explosions and mine collapses. We find out exactly what happened in some infamous cases – and how humanity played a pivotal role in these events.

Population growth and Industrialization• Poverty and unhygienic settlements• Urbanization• Depleting natural resources and rising population• Deforestation. However afforestation is not a cause of environmental pollution.

Man-made disasters have an element of human intent, negligence, or error involving a failure of a man-made system, as opposed to natural disasters resulting from natural hazards. Such man-made disasters are crime, arson, civil disorder, terrorism, war, biological/chemical threat, cyber-attacks, etc.

Here are some ways to reduce the risk of man-made disasters:

Prevention: Implement measures to prevent or reduce the severity of disasters, such as:

Land use: Plan land use and zoning practices

Building codes: Enforce building codes and implement disaster-resistant building practices

Public awareness: Educate the public about disaster preparedness and first aid

Risk assessment: Identify and assess risks, and monitor and evaluate them

Response and recovery: Prepare for response and recovery, and set up organizations to coordinate relief work

Early warning: Install efficient forecasting and warning systems

Communication: Strengthen the communication network

Insurance: Provide insurance programs

Nature-based solutions: Use nature to reduce the risk of disasters, such as using forests to stabilize slopes and wetlands to regulate floods

Solution/ Prevent disaster in the community

Types of Preventative Measures

Planning measures: Cities and locales can be planned and built in the safest way possible. Houses and workplaces should be built away from the areas that are most vulnerable to the effects of natural disasters. Infrastructure should be built with the risk of natural disaster in mind.

Present Structure for Disaster Management in India

The National Disaster Management Authority has been established at the center, and the SDMA at state and district authorities at district level are gradually being formalized. In addition to this, the National Crisis Management Committee, part of the earlier setup, also functions at the Centre.Two distinct features of the institutional structure for disaster management may be noticed. Firstly, the structure is hierarchical and functions at four levels – center, state, district and local. Each preceding level guides the activities and decision making at the next level in hierarchy. Secondly, it is a multi-stakeholder setup, i.e., the structure draws involvement of various relevant ministries, government departments and administrative bodies.

Measures taken for Prevention and Mitigation of Hazards

Risk of destruction and casualties associated with different disasters can substantially be reduced by introduction of prevention and mitigation measures. It categories i.e. structural and non-structural. Structural mitigation refers to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant protective structures and infrastructure. Nonstructural mitigation refers to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk with related impacts.

Disaster Management Act, 2005

The Act provides for setting up of a National Disaster Management Authority (NDMA) under the Chairmanship of the Prime Minister, State Disaster Management Authorities (SDMAs) under the Chairmanship of the Chief Ministers, District Disaster Management Authorities (DDMAs) under

the Chairmanship of Collectors/District Magistrates/Deputy Commissioners. Under its aegis, the National Institute of Disaster Management (NIDM) for capacity building and National Disaster Response Force (NDRF) for response purpose have been set up. The Act also provides specific roles to local bodies in disaster management. The DM Act, 2005 also envisages specific roles to be played by the local bodies in disaster management.

Prevention / Solution on man-made disaster

- ✓ **Develop policies:** Prioritize environmental protection and public health, and enforce environmental health laws.
- ✓ **Educate the public:** Raise awareness about potential hazards and disaster preparedness.
- ✓ Implement building codes: Enforce appropriate building codes and implement land use and zoning practices.
- ✓ **Prepare for response and recovery:** Have a plan for rapid, effective remedial action in the event of a disaster.
- ✓ **Prepare for emergencies:** Have an emergency reserve fund, food reserve, health facilities, and warning systems.
- ✓ **Train personnel**: Ensure that personnel working in hazardous industries are properly trained.
- ✓ **Maintain safety measures:** Ensure that safety measures are properly maintained and cared for.
- ✓ **Remove encroachments:** Remove human encroachments around hazardous industries.
- ✓ **Locate hazardous materials:** Locate hazardous sites and materials away from population centers.
- ✓ **Perform pilot studies:** Perform pilot studies and take independent environmental health advice.

Conclusion- Man-made disaster we can possible control on it. According to disaster act and community involve in disaster management and some rules follow by the public like that develop policies, locate hazardous materials, Maintain safety measures, Remove encroachments, Train personnel, Educate the public, Implement building codes, Prepare for response and recovery.

Reference

1. Crisis Management from Despair to Hope, Third Report- Second Administrative Reforms
2. Commission, September 2006, New Delhi
3. Gupta S. D.(2006) How IT changing in rural India.
4. Global media journal-Indian edition- Initiatives in ICT for rural development- Arjit Ghosh
5. Rama Rao, T.P. ICT and E- governance for rural development
6. Mall R. K., A. Gupta, R, Singh and L. S. Rathore, 2006, 'Water Resources and Climate Change-An Indian Perspective', Current Science, 90, 12, 1610-1626

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36

The Role of Society in Disaster Managment

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Abstract
Main objective of this paper that the role of society in Disaster management. frequency and intensity of current extreme weather events and give rise to new vulnerabilities with differential spatial and socio-economic impacts on society. Society face the danger of death or physical injury. You may also lose your home, possessions, or community. Such stressors place you at risk for emotional and physical health problems. Stress reactions after a disaster look very much like the common reactions seen after any type of trauma. Community describes a procedure for identifying, analyzing, responding to, keeping an eye on, and assessing potential disasters in order to set up a plan of action.
This paper completely study on secondary data.
Key words: Disaster Management, Vulnerability, Society,

Introduction

Disaster management in India is one of the most important factors is Society. From Many years India have been effectively implemented many policy and plan but we could not control on disaster. That's why we are suffering many problems, its impact on our development on us and our nation. Until the society has not involved in disaster management, till we are not decrease disaster Vulnerability.

Community being at the forefront of disaster plays a significant role. It offers prevention, preparedness, mitigation, response, and recovery measures. It manages the community's efforts and the plans of action to be taken in order to escape the dire circumstances. Community participation, engagement, and resilience-building are crucial components of disaster management initiatives because of the intricate and multidimensional effects that catastrophes have on communities. There is society involved in Disaster Management, which was created together with input from all stakeholders and is fervently regarded as an essential component of the development strategy.

Climate Profile

India is home to an extraordinary variety of climate. A study rainfall data from 1875 to 1998 indicated country affected by drought was more than 60%. The probability of occurrence of drought in Rajasthan (25 %), Saurastra & Kutch (23%), followed by Jammu & Kashmir (21%) and Gujarat (21%) region.

Vulnerability Profile of India

India has been vulnerable, in varying degrees, to a large number of natural, as well as, human-made disasters. It is highly vulnerable to floods, droughts, cyclones, earthquakes, landslides, avalanches and forest fires. In india, 27 of them are disaster prone, 58.6% of the landmass is prone to earthquakes, over 40 million hectares are prone to floods, 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.

Society participation in Disaster Management

A comprehensive strategy for disaster risk reduction and response is known as "community-based disaster management" (CBDM). It describes a procedure for identifying, analyzing, responding to, keeping an eye on, and assessing potential disasters in order to set up a plan of action. It is the development of volunteer capacity and training, as community members are the first to respond to emergencies. it is governed by the ideals of equity and inclusion, public accountability, heterogeneity, economies of scale, and subsidiarity. Due to its very nature, CBDM necessitates a decentralized, bottom-up strategy that involves extensive micro interventions at the ward, village, or Panchayat level.

Stages of Community-Based Disaster Management

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1. **Risk and vulnerability assessment for disasters-** community profiles can be created in order to gain an understanding of the risk of disasters through participatory research on historical disaster information, geoclimatic, physical, spatial, and sociopolitical-cultural factors, as well as economic activity within vulnerable groups. Risk assessment is a elaborative process that identifies the nature, extent, and magnitude of the disaster's adverse effects on households and communities within a projected time frame.
2. **Planning for disaster mitigation**: Implementing precise interventions, working collaboratively, deepening the context of disaster risk through training, exchanging experiences. The outcome of the risk analysis is used to implement program planning and formulation. Planning for an important event, identifying a financial campaign, creating a program plan, and objective are all included in this planning.
3. **Post-disaster relief**: In addition to evacuation and transportation services to the community, this would call for an emergency shelter, medical attention, food, and basic supplies. A crucial component of this phase is recovery and rehabilitation.
4. **Monitoring and evaluation**: Program assessments that are modified in order to conceal the disaster are anticipated to be utilized to determine the efficacy of efforts. The results of the evaluation will thereafter be applied to further community empowerment and enhance catastrophe risk reduction

Significance of society in Disaster Management

1. 1.**Identifying the target community**: The focus of Community-Based Disaster Management (CBDM) is on the active participation of community members, including underprivileged groups like women, children, the elderly, and people with disabilities, in disaster management decision-making processes. The government needs the assistance of those who are vulnerable in order to quickly plan and implement mitigation, preparedness, response, and recovery actions.
2. **Local participation**: It requires local level participation of volunteers to provide necessary services and logistics help to the victims during and after the disaster.
3. **Evacuation and transportation**: Plans for backup should be in place for both human transportation and evacuation. This measure needs to be taken prior to the disaster so that nobody is left stranded.
4. **First-aid**: Basic first aid should be taught to the population. Additionally, the local level should have a sufficient supply of first-aid kits on hand. First-aid education and awareness campaigns ought to be held.
5. **Food and other essential supplies**: It is the grassroots community's duty to make arrangements for food and other hygienic necessities and Fruits and vegetables for persons experiencing a crisis became they get energized so they can escape the situation.
6. 6.**Comforting companions**: Rescuers, caregivers, and oftentimes the last consoling companions for the terminally ill were volunteers and involved members of the community. A community may handle physical health issues reduce the likelihood that its members will experience mental stress, and recover.
7. **Build Back Better**: In the event of a disaster, local volunteers working together and citizen groups can help mitigate the effects and "build back better." Different levels of readiness mean that when a crisis strikes, many communities are caught off guard.
8. **Local techniques**: In order to lessen the effects of disasters, communities in high-risk locations have frequently created their own coping techniques and plans. To increase the ability of the populace to withstand the effects of disasters, it is critical to value these local resources and expertise and to expand upon them.
9. **Trained Leadership**: Using a participatory method to train a chain of community cadres and develop community leadership can help the community become more resilient and resourceful in handling difficult situations.

10. 10.**Establish connectivity**: The local community through its own sources can establish the lost connectivity be it road, rail, electricity, or network shortage due to broken or damaged sources.
11. **Awareness programs**: National Disaster Management Authority conducts awareness-raising campaigns on various disasters through print, electronic, and social media. The goal is to enlighten, educate, and raise public awareness.
12. **Aapda Mitra Scheme**: In order to prepare 6000 community volunteers in 30 flood-prone districts across 25 States and UTs for disaster response, with a particular emphasis on flooding, the National Disaster Management Authority (NDMA) has launched the Aapda Mitra Scheme as a pilot project. This will enable the volunteers to attend to the immediate needs of the affected communities following a disaster. Under the pilot program, more than 5500 volunteers have received training.

Conclusion

When a disaster occurs, the external aid comes late so the people should be skilled in first-aid techniques and in ways to help other critically injured people. Every house should have a first -aid kit. There should be awareness about the disasters and preventions for them. The goal of community-based disaster management is to lessen public vulne ability and provide the public with the skills and information needed to accept risks as a part of life and keep them from turning into disasters. The creation of a disaster management plan, the formation and operation of disaster management committees (DMCs) and disaster management teams (DMTs), the conduct of simulated drills, awareness-raising, community training, and the creation of a community contingency fund are the primary elements of this process. The Community-Based Disaster Management procedure needs to be connected to the community to produce effective results.

Reference

Crisis Management from Despair to Hope, Third Report- Second Administrative Reforms Commission, September 2006, New Delhi

Gupta S.D.(2006) How IT changing in rural India.

Global media journal-Indian edition- Initiatives in ICT for rural development- Arjit Ghosh

Rama Rao, T.P. ICT and E- governance for rural development

Mall R. K., A. Gupta, R, Singh and L. S. Rathore, 2006, 'Water Resources and Climate Change-An Indian Perspective', Current Science, 90, 12, 1610-1626