

Disaster Management and Sustainable Development

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Abstract: *Communities will always face natural hazards, but today's disasters are often generated by, human activities. Their frequency also increased. At the most dramatic level, human activities are changing the natural balance of the earth, interfering as never before with the atmosphere, the oceans, the polar ice caps, the forest cover and the natural pillars that make our world a livable home. There is a close correlation between increased demographic pressure, especially in developing countries growing environmental degradation, increased human vulnerability and the intensity of the impact of disasters. The escalation of severe disaster events triggered by natural hazards and related technological and environmental disasters is increasingly threatening sustainable development. But the only way is to mitigate the effect of disasters to concentrate on the importance of Sustainable Development.*

Disaster Management is a strategic planning and procedure that is administered and employed to protect critical infrastructures from severe damages when natural or human made calamities and catastrophic even occur. Disaster management is linked with sustainable development, particularly in relation to vulnerable people such as those with disabilities, elderly people, children and other marginalized groups. As Sustainable Development is the urgent need to reduce

the risk of disasters. Sustainable Development has been defined as balancing the fulfillment of human needs with the protection of the environment. And protection and conserve environment is helpful to disaster management. This paper examines the effectiveness of sustainable development to reduce the risk of disasters and hazard prevention. And also promote community-based disaster management planning by local Authorities, including through training activities and raising public awareness

Key word—human vulnerability, disasters, sustainable development, mitigation,

Introduction:

Disaster is an undesirable occurrence resulting from forces that are largely outside of human control, strike quickly which causes serious disruption of life and property including death and injury to a large number of people. For a long time it is known disaster as a consequence of natural forces, and human beings were treated as innocent and helpless victims in front of the mighty forces of nature. So a disaster happens when a hazard impacts on the vulnerable population and causes damage, casualties and disruption.

But disasters are also caused by human activities. Some human activities are directly responsible for disasters like increasing emission of green house gases, wars, and environment pollution and some other activities accelerate the disaster severity indirectly. Floods and

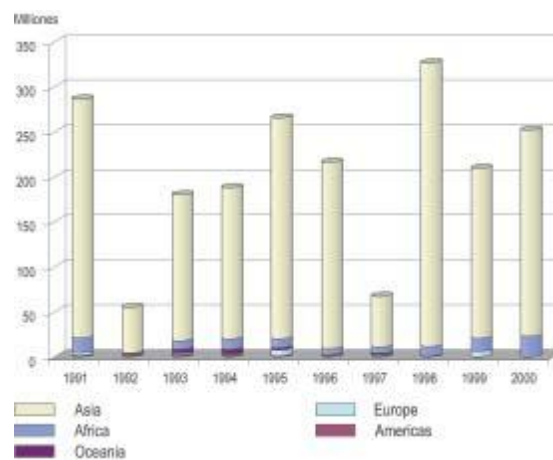
landslides due to deforestation and unplanned construction activities are some of the disasters that are the result of indirect human actions. In last few decades the man-made disasters have

increased both in their numbers and magnitudes. The casualties of human being are increasing annually due to the increasing frequency and magnitude of disasters.

The below table shows the disaster affected people in world during 1991-2000.

Total Numbers of people affected by Disasters

(By continent) 1991 – 2000



Source: EM-DAT, CRED, University of Louvain, Belgium

Disaster management:

Disaster management is the creation of plans through which communities reduce vulnerability to hazards and cope with disasters. Nowadays disaster management is an integrated and holistic approach. There are two phases in disaster management:

Pre-disaster Phase:

1. Prevention.
2. Mitigation.

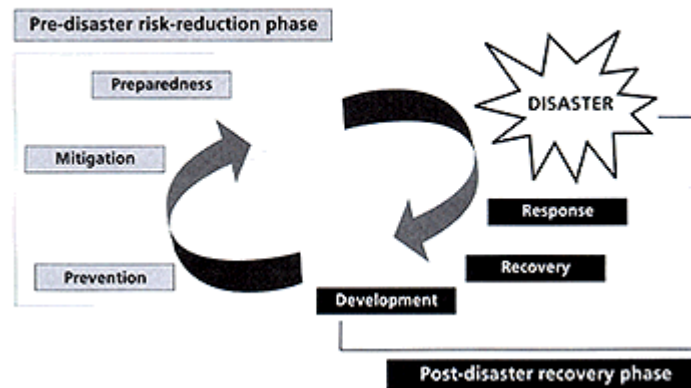
3. Preparedness.
4. Capacity Building and Awareness.
5. Community Based Disaster Management.

Post-disaster Phase:

1. Prompt and Efficient Response – Proactive, rehabilitation
2. Reconstruction to build back better. Both phases relates in figure 1

FIGURE 1

Traditional model — sequences of action



Source: www.polity.org.za

Disaster management and sustainable development

The second and main aspect of disaster management is to consider the importance of sustainable development. Because sustainable development provides the opportunity for the conceptual integration of disaster reduction within the agenda of sustainable development.

Sustainable development: development which meet the needs of present without compromising ability of future generation to meet their own needs. Sustainable development ties together concern for the carrying capacity of natural system with the social, political, and economic challenges faced by humanity. It also concerns with conserve the environment through rationally usage of resource. There are many aspects of sustainable development that are helpful to reduce disaster risk:

Take action to combat climate change; Investing in disaster risk reduction is a precondition for developing sustainably in a changing climate. If we increase renewable energy that will be helpful to reduce green house

emission and climate changed based disasters will be reduced.

Protect, restore and promote sustainable use of underground and surface water; rationally usage of water will decrease drought events in future.

Ensure sustainable consumption and production patterns: the sound management of chemicals and substantial reduction in waste generation can significantly contribute to reducing disaster risk

Make human settlements, safe, resilient and sustainable: unplanned and rampant construction in urban areas lead to severe disasters like Chennai flood in December 2015, recently J&K (2014) and uttarakhand (2013). We must avoid past development mistakes and remove encroachments.

Ensure access to, reliable, sustainable and modern energy: To increase in the number of energy infrastructure installed and growing incentives for clean energy development.

Achieve food security and promote sustainable agriculture: it is best way to get



goal of disaster risk reduction through sustainable development.

Eradicating extreme poverty; an urgent need to build and strengthen the resilience of poor communities to prevent future disaster events from pulling more people into poverty and to protect their livelihoods and assets to help them recover.

The time calls for improving the planning process and implementation with adequate awareness and effective governance and safety of people and their resources are crucial component of sustainable development. We will have to understand the links between vulnerability and risk to disasters related to development and environment. Sustainability is the key word in the development process. Development activities that do not consider the disaster loss perspective fail to be sustainable. The compounded costs of disasters relating to loss of life, loss of assets, economic activities, and cost of reconstruction of not only assets but of lives can scarcely be borne by any community or nation. Therefore, all development schemes in vulnerable areas should include a disaster mitigation analysis, whereby the feasibility of a project is assessed with respect to vulnerability of the area and the mitigation measures required for sustainability. Environmental protection, pollution control, construction of earthquake resistant structures etc., should therefore have high priority within the plans.

The aim of a mitigation strategy is to reduce losses in the event of a future occurrence of a hazard. Structural mitigation may comprise construction of individual disaster resistant structures like retrofitted or earthquake-resistant buildings or creation of structures whose function is primarily disaster protection like flood control structures, dykes, levees,

infiltration dams etc. Therefore, a pro-active stance to reduce the toll of disasters requires a more comprehensive approach that comprises both pre-disaster risk reduction and post-disaster recovery. Scientific research and practitioner experience have revealed that disasters, development and poverty are intimately linked:

Sustainable and integrated management of natural resources, including reforestation schemes, proper land use and good management of rivers and coastal areas will increase the resilience of communities to disasters by reversing current trends of environmental degradation.

Conclusion: We should promote education for sustainable development in society so that people can understand the importance of their natural environment and local ecosystem. It is the better way to reduce the frequency and effects of natural and man-made disasters. The Yokohama Strategy and Plan of Action for a Safer World (1994) also recognized the interrelation between sustainable development and disaster risk reduction –disaster prevention, mitigation, preparedness and relief are four elements which contribute to and gain from the implementation of sustainable development policies.

Promote reuse and recycling of waste, energy efficiency and renewable energy sources. We should develop scoping exercise on the involvement of the Corporate Sector in Disaster Management and develop the block, Gram Panchayat and Village disaster management plan.

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