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NATURAL DISASTER MANAGEMENT

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ABSTRACT

Disasters have been increasing in frequency and intensity over the past few decades. This has been directly linked to the nature and extent of human activities taking place in erstwhile natural surroundings. Human populations are settling in areas hitherto left untouched due to those being declared hazard prone. This trend of increasing disasters has necessitated changes in the disaster management systems too. The trends in disaster management can be studied with reference to vulnerabilities of specific regions in India and the requirements of disaster management in those areas, viz. the Himalayan regions, the Riverine regions and the Coastal regions. The chief emerging requirement in disaster management is sustainable development practices, factoring vulnerabilities of each specific geographic region in development policy.

KEYWORDS: *Disaster, Human Activities, Natural Surrounding, Coastal Regions, Geographic Region.*

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Introduction

The International Strategy for Disaster Reduction (ISDR) of the United Nations (U.N.) defines a hazard as **"**a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.**"**[1] Hazards could be, natural or induced by human activities, (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Accordingly, Hazard Analysis entails the identification, study and monitoring of a hazard to determine its potential, origin and characteristics. 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 that available social and economic protection mechanism are inadequate to cope. Even at the outset, the conceptual distinction between 'hazards' and 'disasters' needs to be brought out clearly. Floods, Cyclones, et al are events in nature until a configuration of factors, which could be man-made or natural or both, cause the hazard to turn to a disaster. Disaster is the actual occurrence of the apprehended catastrophe.

Disasters proceed by cause-effect due to endogenous (inherent) and exogenous (external) factors, which combine to excite the phenomenon into a large-scale destructive event. Disasters are a result of vulnerabilities, which go on unabated/unchecked over time, which crystallises finally in a destructive event of great magnitude, which is a disaster. Disaster is disturbance of **"**equilibrium' which can be restored/ remedied by proactive policy in this regard. Hence, traditional perception of disasters as natural phenomena outside the realm of human intervention is misconstruing the problem; it is giving way to a 'systems perspective', which encompasses, ecological and social perspective to disasters, whereby disasters are understood as totalising events in which all dimensions of a social-structural formation involving organised human action in the environmental context in which it takes place is studied"[2]

As a society interacts with its environment with its values and perceptions and engages in a series of processes over which it has incomplete control and knowledge of, for example, development and planning processes involving production and distribution of goods over long periods of time; underlying hazards turn to disasters. By systemic understanding, "hazard simply acts as a 'catalyst' in that it brings forth underlying tensions that are always present as potential pressures. Systems' perspective is therefore rightly applied to understanding the phenomenon underlying disasters**"**[3]

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With this understanding, Disaster Management is an attempt to inquire into the process of a hazard turning to disaster, to identify the causes and rectify the same through public policy. Administrative factors, such as poor building in an earthquake prone zone, poor land use planning in flood prone areas which lead to housing critical facilities in at- risk zones; allowing habitation in such zones, poor laws that fail to regulate facilities leading to disasters, such as the Bhopal gas leak, general low risk perception among people, more significantly policy-makers that hinders interest articulation for preventive policy for disaster management create conditions that lead to low lying /inherent hazards turning to disasters. This leads us to the issue of sustainable development since study and research in the area of disaster management is increasingly revealing human causatives behind disaster phenomena.

There is also increasing understanding of man-made causes behind most natural disasters, which calls for, and has, in fact, affected renewed understanding/perception of disasters. "For both natural and man-made disasters, there is increasing evidence to suggest that both are in fact 'policy disasters' rather than the results of nature's vagaries or designs of fate"[4].

Increasing evidence suggests that human fallacies, such as inadequate legal framework to regulate hazardous units, have resulted in tragedies like the Bhopal tragedy and the in house Vizag steel accidents where minor fires and deaths of employees due to mishaps have been reported. Unrestricted felling of forests, serious damage to mountain ecology, overuse of groundwater, changing patterns of cultivation, etc., has precipitated recurring floods and droughts. The spate of landslides in the Himalayas in recent years can be directly related to unchecked exploitation of forests and mountain vegetation and networks of roads that have been indiscriminately laid in the name of development. As articulated in the India Disasters Report (2005), lack of policy restricting tobacco and liquor sale has led to disasters by way of increasing mortality, globally, almost on epidemic proportions.

"Tobacco related diseases are increasingly incident, such as oral cancer and heart disease in young people under 40. It is apprehended that each year, tobacco causes 3.5 million deaths worldwide, or about 10,000 deaths per day. One million of these deaths occur in developing countries"[5] By 2020, it is predicted that tobacco will become the leading cause of death and disability, killing more than 10 million people annually; thus, causing more deaths worldwide than HIV, tuberculosis, maternal mortality, motor vehicle accidents, suicide, and homicide combined. India has one of the highest rates of oral

The concept of Disaster Management Cycle has entered disaster management efforts over the past few years, especially since "the Yokohama Conference (1994). Hitherto, disaster management had been perceived as a short-term relief undertaking, which lasted till some time after a disaster. Other purposive activities undertaken in the pre or post-disaster stages on the part of civil society or the government towards mitigating the impact of disasters or tackling long -term vulnerabilities and dealing with newer threats in the wake/ aftermath of a disaster were not included in disaster management activities"[6]. They were rather classified, developmental activities or 'social action' on the part of civil society actors(s), motivated by philanthropic concerns.

"The concept of Disaster Management Cycle integrates isolated attempts on the part of different actors, government and nongovernment, towards vulnerability reduction or disaster mitigation, within the enveloping domain of disaster management, as phases occurring in different time periods in disaster management continuum, though essentially relating to/comprising disaster management. This has facilitated a planned approach to disaster management in that post- disaster recovery and pre -disaster mitigation planning are perceived as integrated/related activities and not separate"[7] Thus, prevention, mitigation and preparedness form pre-disaster activities in the Disaster Management Cycle and, response, comprising relief, recovery and rehabilitation are post-disaster activities. Whilst "emergency relief and rehabilitation are vital activities, successful disaster management planning must encompass the complete realm of activities and situations that occur before, during and after disasters"[8]

These phases can best be represented as a cycle, "which if followed through public policy can obstruct future development of disasters by impeding the vicious cycle of cause and effect. These activities are implemented at specific times, the length of any one phase depending on the type of disaster, its breadth and scale. Therefore, one of the key issues in disaster management planning is the allocation of resources at all stages of the disaster cycle, which optimises the total effectiveness of risk reduction activity and maximises the overall impact of disaster management"[9].

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