

## **SOCIOLOGICAL ANALYSIS OF THE IMPACT OF NATURAL DISASTERS**

*Dr. Joydeep Goswami, Assistant Professor, Department of Sociology Govt. Model College Borkhola, Cachar*

### **Abstract**

The Oxford English Dictionary states that the word disaster derives from the 16<sup>th</sup> century French word “disaster”. This is a combination of two words ‘des’ meaning bad and ‘aster’ meaning star. Thus the term refers to ‘Bad or Evil star’. A disaster is a result from the combination of hazard, vulnerability and insufficient capacity or measures to reduce the potential chances of risk. Natural disasters are universal in nature. All over world natural disasters are create a dangerous problem in earth surface. It is not a new phenomenon. It comes unknowingly or accidently in human life, not only human being but also animals’ life. Broadly disasters are two types, namely: “natural” disasters and “human-made” disasters. Almost every day, newspapers, radio and television channels carry reports on disaster striking several parts of the world. It is one of the most dangerous problems in India especially North-East-India. North-East India mainly comprises of eight sisters’ states namely, Assam, Nagaland, Manipur, Meghalaya, Mizoram, Tripura, Arunachal Pradesh, and Sikkim. Assam is one of the most disaster prone states in North-East India. Every year Assam is affected by natural disasters like floods, earthquake, landslides, cyclone and occasional draught. Therefore, an attempt has been made in this paper to highlight the social aspects of natural disasters and its analysis.

Globally, natural disasters are multi-dimensional problem. The oxford English dictionary states that the word ‘Disaster’ derives from the 16<sup>th</sup> century French word ‘Desastre’. Disasters cause sudden disruption to the normal life of a society and cause enormous damage to property to a great extent. Basically there are two types of disaster namely natural disaster and human made disaster. Both natural and human-made disasters are common throughout the world. It is often unforeseen. Disaster can either be slow moving in their onset or sudden and unexpected. So it can be recognizes as “sudden event” or “unexpected event”. Disaster refers to a widespread destruction of life, property and environment. It is different from hazard which is a dangerous natural or manmade event. Disasters are not new to mankind. They have been the constant, though inconvenient, companions of the human beings since time immemorial. Disasters caused by floods, droughts, tidal waves and earth tremors are generally considered as “Natural disasters”. Natural Disasters have occurred throughout the world ever since the world began. Disasters caused by chemical or industrial accidents, environmental pollution, transport accidents and political unrest are classified as “Human-made” or “Human-induced” disasters since they are the direct result of human action. A disaster is a result from the combination of hazard, which is vulnerable and insufficient capacity or measures to reduce the potential chances of risk. Natural disasters are directly impact on economies, agriculture, water, sanitation, the

environment and health each year. The World Health Organization (WHO) defines disaster as an ‘‘Occurrence that causes damage, economic destruction, loss of human life and deterioration in health and health services on a scale sufficient to elicit an extraordinary response from people outside the affected area.’’ Another definition given by Webster’s dictionary defines that ‘disaster as a grave occurrence having ruinous results.’’ In India, One of the most recent natural disasters is the massive flood which affected Jammu & Kashmir in September, 2014. The heavy and continuous rains lashed the city of Srinagar and caused disastrous floods, which claimed thousands of lives and had people trapped in their homes for days, without food and water. In North-eastern region Assam is highly vulnerable to natural disasters like floods, earthquake, landslides, cyclone and occasional draught. The population in the North-eastern region of India, particularly Assam is subjected to perennial floods, landslides and environmental degradation. Odisha Cyclone (1999), Mumbai Floods (2005), Bihar Floods (2007), the Indian Ocean Tsunami (2004), Calcutta Cyclone (1737), Latur Earthquake (1993), Gujarat Earthquake (2001) and the Bengal Famine (1943) are some of the important examples of major natural disasters to have affected India.

Disaster management is a discipline that involves preparing, supporting and rebuilding society when natural or man-made disasters occur. It is the continuous process by which all individuals, groups and communities manage hazards in an effort to avoid or ameliorate the impact of disasters resulting from the hazards. The Disaster management cycle has four components these are mitigation, preparedness, response and recovery. In this paper an attempt has been made to analyze the social aspects of natural disasters and its impact. Everybody knows that there are 7 continents and 5 oceans are there in earth surface. Out of 6 continents Asia continent is highly vulnerable to disasters. Now a question arises: Does the disaster will destroy the whole world in future? So we people should think that how disasters can measures or aware from destroy the world. The stated paper is entirely based on Secondary sources of data. Such as census reports, articles, journals, books, unpublished PhD thesis, newspaper, Internet etc. The paper has tried to focus mainly on natural disaster, its pattern, socio-economic impact and measures taken by various agencies to cope with natural disaster.

Bishnu Prasad Sahu & S Mahapatra (2004) mentioned that disaster can be classified under three broad categories such as natural disasters, human-made disasters and other disasters. Again says that natural disaster may further be classified into minor and major natural disaster. Minor disaster like cold wave and major disaster like cyclone etc. In the handbook written by B.K. Singh (2008) on ‘Disaster Management, Techniques and Guidelines’, classified disasters into major or minor natural disasters and major or minor man-made disasters. Major man-made disasters are setting of fires, epidemic, deforestation, pollution due to prawn cultivation, chemical pollution and wars etc. Minor man-made disasters are road or train accidents, riots, food poisoning, industrial disaster or crisis and environmental pollution etc. Natural disasters are natural phenomenon and occur without any intention while man-made disasters are events which, either intentionally or by accident cause severe threats to public health and well-being.

Because their occurrence is unpredictable, man-made disasters pose an especially challenging threat that must be dealt with through vigilance, and proper preparedness and responses. Both natural and man-made disasters provide their severe impact on the individuals, society, economy, natural resources and environment. The Government of India constituted a High Power Committee on Disaster Management, in 1999 and has identified major sources of natural disaster. Such as:

(i) **Water and climate related disasters** It includes Floods and Drainage Management, Cyclones, Tornadoes and Hurricanes, Hailstorm, Cloud Burst, Heat Wave and Cold Wave, Snow Avalanches, Droughts, Sea Erosion and Thunder and Lightning.

(ii) **Geological related disasters** It includes Landslides and Mudflows, Earthquakes, Dam Failures or Dam Bursts and Mine Fires.

(iii) **Chemical, industrial and nuclear related disasters** It includes chemical, industrial and nuclear incident disasters.

(iv) **Accident related disasters** Forest Fires, Urban Fires, Mines Flooding Oil Spill, Major Building Collapse, Serial Bomb Blasts, Festival related disasters, Electrical disasters and Fires, Air, Road and Rail Accidents, Boat Capsizing and Village Fire have been included in this sub-group.

(v) **Biological related disasters** This sub-group includes Biological disasters and Epidemics, Pest Attacks, Cattle epidemics and Food poisoning.

All above mentioned disasters are common in our country. Year after year disasters are increasing in our country because till now our government failed to control the sources. According to P. Chidambaram “A disaster is not bound by political, social, economic or geographic boundaries. When it occurs, it impacts all. Globally, there has been an increase in the number of natural disasters over the past few years. The impact of such a calamity, however, does not remain confined to its physical component but transcends beyond it and impacts the socio-economic conditions of affected persons and places.” Out of 36 states and union territories in our country, 27 of them are disaster prone. Vulnerability to floods and other natural disasters are caused by the high population density, widespread poverty, unemployment, illiteracy, enormous pressure on rural land, and an economy traditionally dominated by agriculture. The inhabitations of the poor people on marginal land are prone to all types of disasters because the types of construction of these houses are made up of low cost material without giving much consideration to technical aspect are easy targets of various hazards. Disasters disrupt progress and destroy the environment. Disasters affect people in many ways such as the physical effects loss of loved ones, pain or physical disability. Almost every day, newspapers, radio and television channels carry reports on disaster striking several parts of the world. In the context of human vulnerability to disasters, the economically and socially weaker segments of the population are the ones that are most seriously affected. According to Marxist philosophy people rely upon nature for fulfillment of their basic needs. The Marxist view is mainly based upon the structure of societies or cultures, and how those societies or cultures are able to respond to

changes in the natural environment. The Marxist theory on hazards has four view points. These are-a) The forms of exploitation in Third World countries increase the frequency of natural disasters as socio-economic conditions and the physical environment deteriorate; b) The poorest classes suffer the most; c) Disaster relief maintains the status quo, and works against the poor even if it is intentionally directed to them; and d) Measures to prevent or minimize the effects of disasters, which rely upon high technology, reinforce the conditions of underdeveloped, exploitation and poverty. Disasters are the main causes of the ever-increasing poverty. Every disaster has three distinct cost factors. They are human costs, social cost and economic costs. The disaster preparedness helps to reduce these costs. Disasters provide great impact on people's life such as displacement, medical problems, loss of agricultural land and home, property and cherished belongings, psychological effect, poor transport system, problems in education, unemployment problems, poverty in society, low investment, division of joint family etc are usually obvious. Disasters also have short-term emotional effects such as fear, acute anxiety; feelings of emotional numbness or grief are very common. Most disasters result from the action or inaction of people and their social and economic structures. Disasters happen because people live such ways as these degrade their environment, developing and over populating urban centers, or creating and perpetuating social and economic systems. The natural disasters directly impact economies, agriculture, food security, water, sanitation, the environment and health each year. Different natural hazards have different impacts such as Drought causes heavy crop and livestock losses over wide areas of land but typically leave infrastructure and productive capacity largely unaffected. Floods and Cyclones cause extensive whereas damage to both infrastructure and agriculture, depending on their timing relative to the agricultural cycle. While Earthquakes have little impact on standing crops excluding localized losses but can cause wide spread devastation of infrastructure and other productive capacity over relatively large areas.

Disaster is a continuous process but it can be managed effectively through close coordination with various government and non-government agencies.

1. In our country, disaster management at various levels has various agencies which play a key role in Disaster Management such as national level, state level, district level, block level and village level. National level has nodal ministries, state level have relief and rehabilitation department, district level have district magistrate, block level have panchayati samiti and village level have disaster management committee.

2. Apart from the national, state, district and local levels there are various institutions such as the police and paramilitary forces, civil defense and home guards, fire services, national I cadet corps (NCC), youth organizations, UN agencies, international and national voluntary groups, public and private sector enterprises, media etc.

3. The 73<sup>rd</sup> and the 74<sup>th</sup> constitutional amendments recognize panchayati raj institutions as 'Institutions of self-government'. These local bodies can be effective instruments in tackling disasters through early warning system, relief distribution, providing shelter to the victims, medical assistance etc.

4. Disaster preparedness involves forecasting and taking precautionary measures prior to an imminent threat when advance warnings are possible.

5. In typical disaster situations NGOs can be of help in preparedness, relief and rescue, rehabilitation and reconstruction and also in monitoring and feedback.

The following suggestions are put forth for tackling the problem of natural disasters and to minimize its effect on human beings and social organizations:

1. There should be some short term training on disaster management in schools and colleges held by government and non-government NGO's.

2. Lack of Central Statistical database in India as a record of past disasters is a major constraint for risk assessment and compilation of disaster history in the country. Disaster information available from different sources is yet to be regularly assessed by common public as well as other stakeholders.

3. Lack of awareness about available resources is a reason for lack of available information. Scientific data on major hazards are available but information on vulnerabilities are scattered in multiple places and often such data are not available uniformly for entire country.

4. Presently there is an inadequate level of protection in the country against natural disasters like floods. Though non-structural measures improve the preparedness to floods and reduce losses, the necessity of structural measures would always remain to reduce the extent of physical damage caused by floods.

5. In future programmes flood control and management planning along with climate change need to be integrated into development planning for the country. Preparedness planning improves the response to the effects of a disaster by organizing the delivery of timely and effective rescue, relief and assistance. Disaster preparedness minimizes the adverse effects of a hazard through effective precautionary actions, rehabilitation and recovery to ensure the timely, appropriate and effective organization and delivery of relief and assistance following a disaster.

Disasters are as old as human history. Man as a species himself is also responsible for environmental degradation and deterioration by over utilizing the resources on this planet because of his ingenuity and greed. This has caused an imbalance in the environment and has made our ecology fragile. Therefore, we need to restore and protect our planet resources to provide an ecological balance for environmental sustainability. In the context of a developing nation like India, we do not have adequate technologies to take care of environmental problems. Besides, we are also encountering a major problem of population explosion which has made us vulnerable to greater health risks and increasing population pangs. In fact, due to environmental degradation, decent living of mankind is becoming difficult. The damage caused due to overexploitation of resources and extreme over-industrialization is so severe that unless some drastic remedies are taken.

**REFERENCES**

- Bohem, Hilda. 1978. *Disaster prevention and disaster preparedness*. Berkeley: University of California.
- Bose, Ashish. 2000. Are natural disasters manmade? *Economic and political weekly*, 35(43/44):3793-3794.
- Coppola, P. Damon. 2007. *Introduction to international disaster management*. Butterworth: Heinemann publications.
- Dasgupta, Rajdeep. 2007. *Disaster management and rehabilitation*. New Delhi: Mittal Publications.
- Dhunna, Mukesh. 2009. *Disaster Management*. New Delhi: Vayu Education of India.
- Gaur, Ramakant. 2008. *Disaster Management*. Delhi: GNOSIS.
- Govt of India. 2009. *National Policy on Disaster Management 2009*. New Delhi: National Disaster Management Authority: India.
- Govt of India. 2011. *Disaster Management in India*. New Delhi: Ministry of Home Affairs.
- Gupta, K Harsh. (Ed). 2003. *Disaster Management*. India: Universities press.
- Husain, Zahid. (Ed). 2003. *Environmental Issues of North East India*. New Delhi: Regency Publications.
- Mehta, Rani. 2014. *Sociology and Environmental Sustainability*. New Delhi: Rawat Publications.
- Newburn, Tim. 1993. *Disaster and after: Social Work in the aftermath of disaster*. London: Jessica Kingsley publishers.
- Sahu, Prasad, Bishnu & Mahapatra, S. 2004. *Post Disaster Management of Super Cyclone- A Case Study of Orissa*. New Delhi: Mittal Publications.
- Saikia, Anup. 2005. Disaster unpreparedness in Assam. *Economic and political weekly*, 40 (24): 2389-2391.
- Sharma, K. Vinod. 2004. 'Disaster management strategies in India', in K S Valdiya (Ed) *coping with natural hazards: Indian context*. Allahabad: Orient Longman.
- Singh, B.K. 2008. *Disaster Management, Techniques and Guidelines*. New Delhi: Rajat publication.
- Trivedi, Priyaranjan (Ed.). 2007. *Encyclopaedia of disaster management: Impact of disasters on development*. New Delhi: Jnanada Prakashan.
- Tyagi, Aditi. 2007. Global and national scenario of natural disasters (with special emphasis on floods). *The Indian journal of political science*, 68(4):791-808.