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# AN ANALYTICAL REVIEW OF STUDIES ON IMPACT OF DISASTER AND MANAGEMENT IN ASIA

Dr. R. SHANTHI, Ph.D.[1]; Dr. P. NALRAJ, Ph.D.[2]

[1,2]ASSISTANT PROFESSOR, DEPARTMENT OF ECONOMICS, ANNAMALAI UNIVERSITY (DEPUTED TO D.G. GOVERNMENT ARTS COLLEGE, MAYILADUTHURAI)

## ABSTRACT

Given the stark differences in climatic conditions across its length and breadth, India continues to be vulnerable to multiple hazards such as avalanches, cyclones, droughts, earthquakes, floods, landslides and forest fires. Disasters are natural or human-induced. Natural disasters are hazardous events resulting from natural processes occurring on Earth and include earthquakes, floods, volcanic eruptions, droughts, and tsunamis to name a few. Human-induced or man-made disasters include Chemical, Biological, Radiological and Nuclear (CBRN) emergencies. Driven by the frenetic pace of unscientific developmental activities, we are increasingly witnessing a third type of disaster - human-induced natural disaster. As per UNISDR, the aftermath of a disaster can have far-reaching consequences. Most disasters have an immediate and negative fallout in the short term; and in the absence of effective and timely intervention, compound in severity and duration, often delaying the road to recovery. The magnitude of disaster, location, and the overall efficiency and effectiveness of the disaster management processes play a major role in determining the overall impact of a disaster. The studies reviewed that the reason for the not recovering are rehabilitation measures could not properly reached. Because most of the people illiterate. The program implemented by the NGOs and the government have not properly reach the needy section of the costal population.

**Keywords:** natural Disasters, human-induced Disasters, hazardous events, magnitude of disaster, location, overall efficiency , effectiveness , disaster management processes.

## INTRODUCTION

According to a recent study by United Nations Office for Disaster Risk Reduction (UNISDR), India was ranked third amongst the top five most disaster-hit countries of the world in 2015. India faced around 19 natural disasters of varying intensity in the year 2015 alone, resulting in severe damages over $3.30 billion. Given the stark differences in climatic conditions across its

  

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length and breadth, India continues to be vulnerable to multiple hazards such as avalanches, cyclones, droughts, earthquakes, floods, landslides and forest fires. Disasters are natural or human-induced. Natural disasters are hazardous events resulting from natural processes occurring on Earth and include earthquakes, floods, volcanic eruptions, droughts, and tsunamis to name a few. Human-induced or man-made disasters include Chemical, Biological, Radiological and Nuclear (CBRN) emergencies. Driven by the frenetic pace of unscientific developmental activities, we are increasingly witnessing a third type of disaster - human-induced natural disaster. As per UNISDR, the aftermath of a disaster can have far-reaching consequences. It includes loss of life, injuries, diseases; and other undesirable effects on physical, mental and social well-being of mankind, damage to property, destruction of assets, loss of services, social and economic disruption and environmental degradation.

Most disasters have an immediate and negative fallout in the short term; and in the absence of effective and timely intervention, compound in severity and duration, often delaying the road to recovery. The magnitude of disaster, location, and the overall efficiency and effectiveness of the disaster management processes play a major role in determining the overall impact of a disaster.

In the Indian context, there are challenges aplenty in effective disaster management. The primary responsibility for disaster management is entrusted with the government authorities, with representatives at national, state and district level. In addition to the government and its agencies, the military, NGOs and voluntary organizations play a major role in disaster relief and rescue activities. A key challenge is to ensure and achieve effective coordination and collaboration amongst these stakeholders. Given the significant risk as well as diversity of disasters, capacity building of various stakeholder groups is yet another formidable challenge. Providing right information at the right time to the concerned stakeholders, especially in the initial hours after a disaster is the cornerstone of an effective and efficient disaster management system. From relief and rehabilitation, the scope of disaster management has expanded over the years at a global level to include prevention, preparedness, response and recovery. The Hyogo Framework for Action (HFA) 2005-2015 focused on disaster resilience by attempting to reduce disaster losses

Seth et.al. in the article titled “The Impact of Authoritative Parenting Style on Educational Performance of Learners at High School Level” have expressed not only damage in physical infrastructure by tsunami but also discussed devastated agriculture and allied sector along with the livelihood opportunities. He also investigates how tsunami damaged farming community in Andaman and Nicobar Islands and the schemes implemented in the study area by the government. The primary data collected by the author in the article expressed how agriculture

  

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land was affected because of tsunami and also agriculture crape losses, input loss farm implement losses and the loss of livestock per family. Finally the author conclude that the Rajiv Gandhi Rehabilitation Program has revived the study area by improving their income, employment and cropping intensity and benefiting forming community with the success rate of 68%.

Tata Institute of Social Sciences in the report titled "Climate Change and Urban Disaster Risk Reduction", has reported by explaining various factors affected the disaster response that have influenced both positive and negative outcomes in the course of relief , rehabilitation and recovery.

Suresh de Mel, et.al. In their articles titled "Mental Health Recovery and Economic Recovery after the Tsunami: High-Frequency Longitudinal Evidence from Sri Lanka Small Business Owners", have conducted a survey in Sri Lanka's micro enterprise owners 561 sample affected to various extents in December 2004. This survey focuses mental health recovery, business profile and livelihoods recovery. These measures of the mental health correlated with general mental health validation survey and post traumatic stress disorder. This article says some result initial level recovery the mental health. But long time is taken to recover from disaster, by individual livelihood.

Ganesh Kumar, et. al. in the article titled "Socio-economic Impact Assessment of Livelihood Security in Agriculture, Animal Husbandry and Aquaculture on the Tsunami-hit Lands of Andaman", The author explain tsunami occurred on the morning 26$^{th}$ December 2004, after a massive earthquake of 9.2 magnitude on the Richter scale in Andaman and Nicobar Island. The present study carried out to make the Socio-economic impact assessment of livelihood security in agriculture, animal husbandry and aquaculture, on the tsunami hit lands of the Andaman. This results to damaging the households, standing crops, farm inputs such as seed, feed and implements, livestock poultry population, their sheds, fish ponds by people in affecting Andaman Islands. The basic livelihood security and rehabilitation measures taken by the Andaman Government and NGOs. Improved their livelihoods by reviving agriculture, creating employment opportunities in various farm activities. The authors also suggested weaker section of the society creating employment opportunity and profitable livelihood securities. Existing poor people's holistic intervention of the community, government and NGOs.

Craig Thourburn in the article titled "Livelihood recovery in the wake of the Tsunami in Aceh" This study on Indonesian's Aceh is about the place affecting the December 2004 tsunami. Aceh has substantial natural resources of oil and natural gas with some estimates that Aceh gas reserves are one of the largest in the world. Aceh was the closest point of land to epicenter of the

  

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2004 Indian Ocean earthquake and tsunami. Approximately 1, 70,000 Indonesians were killed or went missing in the disaster. Indonesian government intended where livelihood programs to help tsunami affected households quickly return to 'normal' life to many international donors, distributing millions of dollars with of equipments, cash and other forms of support to tsunami victims.

Arivazhan et.al., In the article titled "Determination of expected time to recruitment when the breakdown threshold has three components", Since 26th December 2004 tsunami affected Tamil Nadu costal District's of Kancheepuram Tiruvallur, Cuddalore, Nagapattinam, Kanyakumari and hill of the Nilgiris are multi hazard. A disaster risk management program implemented in the affected places. Collaboration with United Nations Development Program (UNDP) and the Ministry of Home Affairs of the Government of India take rehabilitation work relating construction house, sea walls, livelihood options, fishing and agriculture. This paper discussed tsunami affecting children, elders, irulas. Finally conclude with livelihood rehabilitation measures for tsunami victims.

Srinivasan, et. al. in the article titled "The State and Civil Society in Disaster Response: Post Tsunami Experiences in Tamil Nadu". Have explored the author 26th December 2004 tsunami affected in Tamil Nadu districts, Chennai, Cuddalore, Nagapattinam and Kanyakumari. This study focus relief and rehabilitation processes. Investigate this study inequality of affected people, equity, transparency and accountability in different sectors of disaster intervention.

Sekar, et. Al. in the article titled "Psychosocial Support in Tsunami Disaster: NIMHANS Responses". have explored the survey intervention of psychological assessment by tsunami affected people. The researcher study on psychological needs of the tsunami affected peoples like Kanyakumari, Nagapattinam, and Cuddalore Districts. This paper find out psychological impact symptoms of age and gender vice. The implement of the study area psychological support to the respondent, affected community development of psychological care. Long term plans to development of psychological care organized by government and psychological care organized by government and non-governmental organizations.

Robert Pomeroy, et.al. In the article "Coping with Disaster: Rehabilitating Coastal Livelihoods and Communities", have conducted study on past intervention to natural disasters, in the days of post tsunami. After 26th December 2004 tsunami, occur the coastal communities affected, livelihoods, natural disaster also. That time taking tsunami rehabilitation measures taken by costal area. The approaches of the study are, (I). The costal people understand the diversity of livelihood strategies and to understand sources of their weakness of the communion. (II). A framework for designing intervention that build to strengthen the coastal communities and

  

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livelihoods. (III). The researcher focus root cause of vulnerability long term challenged of building recovery and sustainability in the community.

Kanagaratnam, et. al., in the article titled "Mangrove Rehabilitation in the West Coast of Aceh – Issues and Perspectives" have comparative study before and after tsunami the particularly west coast of Aceh, Indonesia socio-economic benefits of mangrove forest is livelihood of coastal communities. The sustainable benefits of mangrove forest rehabilitation program implemented by Aceh. This study explain the program aims of preventing natural disasters. But the same time this study deals with livelihood protection for costal communities. The researcher analyses the program called integrated resource management program.

Kam et al. in this article titled "*Remote Sensing and Field Assessment of Tsunami Effects on Coastal Pond Aquaculture in Northern Sumatra.*".The researcher focus the study 26$^{th}$ December 2004 saddening consequences of tsunami affecting one of the place east cost of Aceh province in Sumatra, Indonesia. This paper study damage to costal aquaculture ponds. The comparative study on before and after tsunami affecting ponds in east satellite images ie., SPOT -5 east coast area 700 km coverage SPOT-5 east coast satellite image visually interpreted the aquaculture ponds to be damaged and relatively intact. East coast area 87 site taking SPOT-5 satellite images. The results indicate that SPOT-5 multi special image based 10 –M spatial resolution prose's intact aquaculture ponds evaluating the damage. The 60 km SPOT-5 multi spectral image assessment of affecting large-area. The researcher conclude SPOT-5 multi spectral satellite image can help planning to protect the coastal community and get livelihood reconstruction and rehabilitation measures.

The above reviews focus on 26th December 2004 tsunami impact of disaster and management. Tsunami brought in unprecedented flow of humanitarian assistance into the shocking connotation and saddening consequences. Some reviews focus pre tsunami and post tsunami, many reviews focus Andaman and Nicobar Island, Indonesians Aceh, Sri Lanka, Tamil Nadu's Kancheepuram, Cuddalore, Nagapattinam, Kanyakumari natural disaster affecting coastal communities, livelihoods, costal aquaculture ponds, agriculture and allied sectors, farming communities, animal husbandry, poultry, mental health hazard.

Multi hazard rehabilitation work conducted by Government and NGOs , Rajiv Gandhi Rehabilitation in Andaman Nicobar Island .Existing vulnerable peoples holistic intervention of the community. Many international donors, distributing millions of dollars with equipment, cash and other forms of support to tsunami victims. United Nations Development Program [UNDP] and The Ministry of Home Affairs of the Government of India.

  

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Rehabilitation relief measures for tsunami victims. Mental health recovery, livelihood recovery, creating employment opportunity, construction house, sea walls, fishing and agriculture.

Preventive technique of natural disasters, the construct sea walls, mangrove forest rehabilitation program implemented. Fixing the tsunami warning equipment's and technology.

## SUGGESTIONS

It has been more than a decade since the tsunami has hit the coastal regions in Tamil Nadu. Even then the coastal communities could not recover from the shocking of the huge disaster made by tsunami. The studies reviewed that the reason for the not recovering are rehabilitation measures could not properly reached. Because most of the people illiterate. The program implemented by the NGOs and the government have not properly reach the needy section of the costal population. It may be this reason that the costal people affected by tsunami could not recover even after long duration.

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