CHAPTER- IX

CONCLUSION AND SUGGESTION
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INTRODUCTION

Disasters do not recognize geographical boundaries. They leave greater impacts on societies as a result of steep increase in human vulnerability, caused by mindless path of development. The record shows that the number of seriousness of disasters is increasing day by day\textsuperscript{1}. There is hardly a day without disasters. The poor countries are disproportionately affected by these disasters. This is mainly due to their unplanned population growth, unprepared development and infrastructural plans and weak capacity to reduce disaster risks. There is no readymade solution to disaster problems. Hitherto the approach towards coping with the effects of disaster has been post disaster management. There after the occurrence of disaster is relegated to historic memory till the next one occurs in the same area or in the same part of the country. But after the increasing awareness, consequences of disasters and its raising issues brought the question of disaster management into forefront. Disaster prevention, preparedness, mitigation, relief and reconstruction are the elements that contribute of sustainable development policies. The details of these elements and the paradigm shift from relief to prevention and mitigation is dealt in chapter II of this work\textsuperscript{2}.

Traditionally till the late 1980’s disaster risk reduction was considered as merely relief and reconstruction. From 1990 to 1999, during the International Decade for Natural Disaster Reduction declared by the united Nation’s, the focus was to advance a wider commitment to activities that could reduce the consequences of natural disasters, under the theme, \textit{Building a Culture of Prevention}. The Yokohama Strategy and Plan of Action for Safer World, 1994 stressed every countries responsibility to protect its people, infrastructure and national, social or economic assets from the impact of natural disasters. It also focuses on the importance of engaging community in hazard awareness and risk management practices. There are enormous International Conference and treaties for natural disaster reduction and the study focus in Chapter - III\textsuperscript{3}.  

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The International conventions reveals that disasters disrupts progress and hard earned fruits of painstaking developmental efforts, often pushing nations, in quest for progress, back by several decades. Thus, efficient management of disasters rather than mere response to their occurrence has in recent times received increased attention globally through the Yokohama Strategy. It reminds responsibility of each nation to develop and strengthen its national capacities and capabilities, national legislations for natural disasters and other disasters. This results the encouragement for enacting legislation across the world. For e.g. Queensland Disaster Management Act, 2005; Philippines Disaster Management Act, 2010, Indonesian Disaster Management Act, 2005 etc and the study concentrated on the analysis of different foreign national legislations like USA’s Stafford Act, 2007; Indonesian Disaster Management Act, 2005; and South African Disaster Management Act, 2002.

India in recent years has made significant development in the area of disaster management. Testimony to this is the enactment of DMA, 2005. A new culture of preparedness, quick response, strategic thinking and prevention is being ushered. The entire process will centre stage the community and will be provided momentum and substances through the collective efforts of all governmental agencies. The power and function of authorities and committees prescribed under the Act are analyzed in Chapter V of the work. However these efforts are made to satisfy our national vision to build a safer and resilient India. The basic responsibility to undertake the disaster management programmes is vested with the state government. For realizing this, the Disaster Management Act, 2005 recommended the constitution of State Disaster Management Authority in each state under Section 14 of chapter three of Disaster Management Act, 2005. In order to analyze the functioning of State’s Disaster Management Authority this work concentrated on the study of Kerala State Disaster Management Rules, 2007. A comparative approach of State Disaster Management Authority’s like State of Gujarat, Andhra Pradesh, Arunachal Pradesh and Utter Pradesh are also undertaken in VIth Chapter.

Eventhough the disasters left many grievances and therefore a humanitarian and human rights approach to the society is essential in response to disasters and emergencies around the world, the United Nations Secretariat helps to mobilize and coordinate effective and principled humanitarian action in partnership with national and international
actors. The UN’s Organization seeks to alleviate human sufferings, advocates for the right people in need, promotes preparedness and prevention and works to ensure that solutions can be sustained beyond the period of crisis and response.

Experience shows that the victims of disasters may have to face multiple human rights challenges even after disaster. Traditionally, the challenges and problems arose after the disasters are dealt with humanitarian nature. However, increasingly, it has come to be recognized that human rights protection are also need to be provided in their context because human rights have to be the legal underpinning of all humanitarian work pertaining to natural disasters. The link between human rights and disaster has not yet been generally reflected in the existing human rights law instruments and the role of judiciary in protecting the rights of victims by granding ex-gratia compensation is vital. For this the study focused on the Case Laws of US and India. This is analysed in Chapter VII.

But the 2004 Indian Ocean tsunami an unprecedented disaster left huge destruction and laws of life in Indian Coastal Areas. Among this Tamil Nadu was worsely affected state in India. Therefore the study focused on the fisher flock community at Pattinapakkam in Chenai District. An Emperical Study was conducted by distributing questionnairs. This is analysed in Chapter VIII. The study helps to find out the miseries faced by this group in possed disaster period and the role of the state in granting compensation.

Before the 26th December 2004, there was feeling among many Asians that Indian Ocean is safe so far as tsunami is concerned. But experience shows it was not and scientists is of the opinion that past history indicates that one major tsunami is likely to visit us every fifty to hundred years and it is now confirmed that India is a tsunami prone country. So India built up the culture of prevention and preparedness rather than relief centric approach.

The present study is mainly focused on the Disaster Management Act, 2005. Certain suggestions are put forward for the amendment of Disaster Management Act, 2005 are follows:

Suggestions to amend the Disaster Management Act, 2005

- Section 2(d), the definition clause of Disaster Management Act does not cover tsunami as a disaster. So include tsunami in the list of disaster.
✓ Make a classification of disaster as major and minor based on its frequency and severity of destruction and fix a criteria to give assistance according to that classification

✓ Introduce a section in this Act to make compulsory insurance to the persons and property according to the nature of the site. For e.g. if the person live in coastal area, then they should be compulsorily insured for cyclone and tsunami disaster. During the Indian Ocean tsunami in 2004 the fishing communities were worsely hit. Since then they did not believe in either exploring options of banking or insurance. Most of the people raised their capital for fishing vessels through private channels and never bothered to insure them. So the loss of catamarans, boats and other motorized vessels meant a permanent loss to them. Therefore make them aware of the compulsory insurance to their life and property from future disasters

✓ Amend the Act in such a manner to fix a specific time period and minimum amount of compensation to the victims according to nature and intensity of disaster, loss of life, destruction etc

✓ The Act should amend by including the definition of the term ‘victim’s’. This is very essential, while giving grants and aids to them

✓ The Calamity Contingency Fund and Calamity Relief Fund granted under Sec 46 of the Act, provided by the centre and state for disaster management should be in the form of

(i) Prevention and mitigation

(ii) Rescue and relief

(iii) Restoration and reconstruction. The amount of such allocation should be clearly mentioned in the Act

✓ Role and co-ordination of NGO’s is not specified in the Act. It is very essential in order to avoid the duplication of relief

✓ Role of civil defence, police and local people should be included in the Act. However in case of major disasters the role of UNs and its organizations should also mention in the Act
The Central and State should grant/aid allowed by the Centre/ State should be in the nature of

(i) Housing assistance – this could include temporary as well as permanent assistance for the construction or repair of building

(ii) Employment assistance – the state should provide employment assistance to a member of the affected family till the individual is re-employed. (This assistance should not exceed to one year).

(iii) Medical assistance – give medical assistance to the victims especially the pregnant women, old age groups and disabled groups

(iv) Transportation assistance- transportation assistance should be provided to the affected persons to relocate displaced person from their pre disaster primary residence as a result of disaster. These above said assistance should be grated till the community able to recoup their normal life

(v) Food assistance -after the disaster the low income groups are unable to buy nutritional foods. So the state in its own expense grants food coupons to the affected community with low financial background, till such house hold sustain their life. (it may not exceed two years and more)

Make provision for community disaster loans. The nationalized banks should give such assistance to business man, self help groups like farmers, fisher folk community etc by subsidy, lowering bank’s interest rates/ with zero interest as per the damages caused in disasters.

The Act should include provision for crisis counseling(psychological) to the affected persons especially women and children

Amend the Act in such a manner to get the victims of their loosed documents like voter identity card, ration card, license, deeds etc within six months after the disaster

Make provision in the Act to constitute a special cell at district level for identification of displaced or missing children or individuals

Special provision for education of children affected by disasters. The affected children should not lose their academic year because of disaster. So the state should
give free education and admit these children’s to their nearer schools by providing free study materials

- If any person knowingly mislead the cash accumulated for disaster management, he shall be punished with severe imprisonment and fine (the amount of fine may be ten times higher than the actual amount)

- The role of local bodies is vague in the Act. So the Act should be amended in such a way to give wide powers and function to utilize material as well as human recourses after the occurrence of disaster. This is very essential because they are the first respondents to disasters

- Add provision to ensure the funds allocated by the centre to the state should be released to the victims in time at the tune of disaster. A period should be fixed for the completion of assignments of new projects during rehabilitation and reconstruction period and these projects should not be extended over the next financial year.

- Give attention to the vulnerable groups like women and children, pregnant and lactating women, aged and infirm and physically challenged people who need special care and attention in disaster situation. So add a provision in the act to take care of such groups and provide special attention and assistance in times of evacuation, distribution of relief and aids etc.

**Environment Protection Act, 1986**

- The authority under the Act should take initiatives to restore the environment as far as to its condition prior to disaster.

- Incorporate a provision deals with the nexus between environment and sustainable development. Report shows that one of the reasons for causing disasters is due to the environmental degradation, unplanned settlement or construction etc. So the authority under the Act, before granting clearance certificates should verify the situation in such a manner, whether such construction after the disaster should withstand future disaster of particular area.
Environmental degradation results in increasing intensity and severity of disasters. Hence, Environmental Impact Assessment should be made compulsory without any compromise.

**Green Tribunal Act, 2010**

Consider the matter ‘natural disaster’ in Green Tribunal Act. This would help to get compensation and quick remedy to the victims of natural disasters.

**Right to Information Act, 2005**

The act should amend in such a manner that the victims have the right to know about the utilization of funds and aids granted by centre/state, NGO’s, private persons etc.

**Coastal Regulation Zone Notification, 1991**

Strictly apply the coastal regulation notification and guidelines. This would help to rejuvenate the biodiversity of the country and to take action against illegal construction and encroachment on the coastal areas.

- Sea wall is the best mitigative measure to slow down the intensity of disasters. So construct sea walls in all coastal areas.

- Raising coastal plantations like casuarinas, palm, bamboo, mangroves etc. this would help to control the intensity of natural disasters like tsunami, cyclones, strong winds etc.

**Criminal Procedure Code, 1973**

Make an additional provision in CrPC under Sec 357 in such a manner to give adequate compensation to the person affected by human induced disasters like industrial, nuclear and atomic disasters.

**Liability under Indian Penal Code**

The IPC should be amended in such a manner to add provision for criminal liability against the operators/suppliers of company who cause death and health hazards to the workers or habitants of disaster affected area.
Rehabilitation and Resettlement Act, 2009

Make a provision in the Act to include the states liability to rehabilitate the victims of disasters.

The Wet Land (Conservation and Management) Rules, 2010

This act aimed to ensure better conservation and prevention of degradation of wetlands. This is very essential because wetlands are critical for human development and well beings. But due to over exploitation of resources, discharge of effluents and over use of pesticides resulted degradation of these wetlands. These wetlands have a large part to control floods. So conserve the wet lands with great care under the rules.

The National Bio Diversity Act, 2002

Give wide power to National Biodiversity Authority under this Act exclusively for regenerating mangroves wetlands, preservation and conservation of coral reefs, grass beds and coastal forests for both short term and long term ecological and livelihood benefits.

Civil Liability for Nuclear Damage Act, 2010

Amend the Act in such a manner that the supplier of nuclear energy should be held liable if his action cause any damage or loss of life, property, degradation of environment should be charged with culpable homicide amounts to murder and impose huge amount of compensation not less than ten lakhs for each victims of disaster. The company should also hold liable for restoring the damaged environment due to disasters.

Panchayat Raj Act

Add a new chapter in the Panchayat Raj Act of every state in such a manner to include disaster management at local level. This could include the power and function of local governments for post disaster situation as well as to pre disaster management. The local government should also give power to make an assessment of damages and destruction caused due to disaster in their locality. Because ,they
could approach these victims very easily rather than a third person. Based on their assessment, the centre/state can grant aid to the affected persons of disaster

**Role of National Authority**

- Hazard prone mapping is very essential to tackle a disaster situation. So National Authority should prepare a hazard prone map at the District level and this could help the Authority to identify the disaster prone area and to take preventive and preparedness measures in these areas according to the proness of disaster.

- Build a robust and sound information database. This could help the authority to disseminate communication to the state and local level with speed and accurate manner.

**Role of the State Authority**

- The funds collected by the private persons should be kept in correct audited manner. A list of names and amount of the contributions should be kept by the State Authority and District Authority and it should be exhibited in private institutions, thrusts and in authorities and institutions related to disaster management programmes.

- Role of educational institutions in coping with disasters should be encouraged. Introduce disaster management training programmes in existing pedagogic research and education. Specialized courses for disaster management may be developed by universities and professional teaching institutions by generating employment opportunities. Professionals should give opportunities to conduct research. For eg educational institutions like engineering colleges should take research on the topic of disaster risk reduction. Equip the doctors and nurses to tackle the trauma. Legal experts can assist the victims by giving awareness about the rights of affected persons. Give legal aids and conduct lok adalats to provide legal helps in securing ration cards, degree certificates and title deeds.

- The schools are the best places to disseminate ideas. So equip the children’s to cope up with the impacts caused by the disasters. Introduce disaster management in their curriculum and conduct frequent mock drills about this subject.
Conduct frequent mock drills and informal training to rescue teams. A programme of periodic drill should be introduced in vulnerable areas to enable prompt and appropriate community response in the event of disasters, which can help to save valuable lives. Mock drills are conducted by the Kerala State Disaster Management Authority in the area around the Mullaperiyar Dam, as far as the dam is in dangerous situation. This could equip the people and rescue team to tackle the situation at time in need. This could help to reduce the intensity of disaster risk by familiar with the escape routes, safe areas etc.

Workshops are excellent for communicating the community to cope up with disasters. The state should conduct seminar and workshops frequently to aware the community. Moreover the state should concentrate for giving awareness programmness, seminars workshops with mock drills in all educational institutions, government offices, community level, theological centres, public and private companies etc.

Generate income to the community by equip them in self help groups, cottage industries, vocational training etc.

The state authority should disseminate the do’s and don’ts guidelines of disasters and preparedness measures for tackling disasters through electronic media like television and print media through like daily news papers, magazines etc. for getting children’s concentration on the topic they should be in animated form.

State government should take initiative to register the allotted homes after the disaster and it should be registered in the name of both male and female members of the family.

**Role of District/ Local Authorities**

Prepare a disaster prone map at the districts and panchayat level and this could include life line saving structures or infrastructures like bridges, roads, schools, hospitals, communications net works etc to reach the people after a disaster.

Prepare a vulnerability map for disaster prone regions and exhibits them in tourists spots, and public places where people visit frequently. The language used in the maps should be in english as well as in regional languages.
Many of the community need not have awareness about the disaster management. So make an arrangement and make them aware about the importance of community participation in pre and post disaster period.

The goal of every disaster management initiative is to build a disaster resilient community. So equip the community with safer living and sustainable livelihood to serve its own development purposes. The community is the first respondent in any disaster situation, thereby emphasizing the need for community level initiatives in managing disasters. Create awareness through disaster education and training and they have the best knowledge about their local surroundings in terms of the most disaster prone areas, vulnerability and risk area, rescue and evacuation area etc. Hence, they should be educated with the capacity to cope with the impacts of disasters and make them aware of the importance of disaster management activities. Through community participation, they could be more confident in their capabilities to act in the event of a disaster and this leads to a self reliant community.

Establish a community based disaster management organizations by connecting two or three districts together. This could help to reduce risk reduction by giving risk communication, health, evacuation, resettlements etc. They could also contact with neighbouring organization to give assistance in pre and post disaster situations.

Make availability of resources as far as possible (during the kadalundi train accident in Kerala, 2001. Six hours had been lost for searching for cutting blade). Prepare all equipments and transportation facilities in our finger tips because seconds are enough to save a life. So the resources should be made available as far as possible.

Training is a very important channel for communicating the community, therefore educate the trainers to use advanced technologies and equipments to cope with the disasters. This helps the community to know about the newly advanced technologies and helps to tackle in post disaster period especially in rescue period.

Mainstreaming women’s participation in disaster risk reduction. Ensure the role of women as active participants of disaster management period especially in
prevention, preparedness, and mitigation. So make a provision under the state Act for including these groups in decision making.

- Communication can create awareness to the public. The use of community theatre or drama is another method of communicating message to the community on disaster preparedness and response. So the local government should take such initiatives for conducting such dramas.

- The local government should prepare an elaborate map consisting of disaster proneness of each state with the evacuation routes, important roads, hospitals etc and distribute these maps to the local people and rescue teams.

- At local level keep a record of major disasters that happened in a particular area. This could help to understand and identify the nature of disasters and its intensity. This would help to work for a better disaster management.

- Youths are the strength of the community. These groups are resourceful people who need guidance to display leadership skills to be spearheading the implementation stage. Therefore aware them about the importance of disaster management and give them training. Introduce an internship in the programme of disaster management to the students of social work and other streams.

**End Notes**

1. Asian Disaster Centre, www.asiandisastercentre.com accessed on 25th Feb 2012 at 3pm

2. See Chapter II, Disaster: Meaning, Scope and Impact.

3. See Chapter III, UN System: An Overview of Activities Dedicated to Disaster Risk Reduction.


5. See Chapter V, Legal Aspects of Disaster Management in India

6. See Chapter VI, Legal Regulation of Disaster Management in State of Kerala - A Comparative Approach of State Laws

8  See Chapter VIII, An Empirical Study with Special Reference to Tsunami Victims at Pattinapakkam in Chennai District.