

Introduction

Disasters play havoc with the lives of millions of people every year around the globe. Their aftermath is a grim picture of death, destruction and suffering. When they strike they do not discriminate in terms of nation, caste, colour religion creed or economic status. One unfortunate fact in India, is that disaster affected areas come into the focus of an otherwise busy nation for a very short span of time. Even before the dust settles, the nation gets glued to another event or news that is stealing the headlines. The responsible authorities get occupied with routine and pressing demands from other sections of society. This cycle carries on indefinitely.

In spite of having a disaster management mechanism at the Central, State and the District level in place in India, the adequacy and efficacy of the system is in question when faced with a huge natural calamity or disaster.

There are many emotions running in a victim who is unfortunate enough to be in disaster zone - sadness, loss, over whelming shock and so on. Some emotions are revealed on camera and in print while some are tucked away forever in the shocked mind. An extract from a blog spot created after Tsunami 2004 capture many of these emotions vividly and is placed at Appendix A to this document. Each victim deserves to be rescued and needs help. It is the least that one can expect from the government

The people conducting rescue operation or relief work strive to save lives and support the injured. Being new to disaster zone, they are often unaware of circumstances, complexities and magnitude of the calamity. Having recently arrived from a safe zone they are mentally and physically stronger to deal with the crisis. But then they need guidance, information, liaison and a constant update on the overall plan of the local administration. This aspect remains a grey area as it is alleged that often the local administration crumbles in the initial impact. It is necessary to verify why it happens and does it always happen.

The state of disaster preparedness in a country is a measure of the capability of the country and its people to take the various steps needed to safeguard lives and property during disasters. India has come a long way in creating and empowering institutions in this area. The DM Act, 2005 provides for the creation of a policy, legal and institutional framework. We must then identify the missing the link.

We need to feel the agony of the victim and keep it alive in our memories, to ensure improvement in our disaster management process. What government alone can do is limited; but what government can achieve along with an alert society has no limits. The thrust area has to be clear demarcation of duties and responsibilities and defining accountability for each participant.

Aim

To improve the chances of survival of my fellow human beings in the event of a natural disaster by optimising efforts of state and the society.

Objectives

- To analyse inadequacy of the local administration after a disaster.
- Based on the experience of armed forces and other agencies in past rescue missions identify the problems faced by a typical rescue agency when it reaches disaster zone to provide relief.
- To recommend measures for optimal response by relief and rescue agencies.
- To carry out a limited study of international experience and identify areas where we could improve our response mechanisms in disaster situations.

Hypothesis

It is a fact that human lives are precious and losing them during disasters is unacceptable. It is believed that as a nation and as a society, our preparedness to face disasters needs to be result oriented. We must optimise available structures, resources and efforts to minimise casualties.

Research Questions

- What is the institutional mechanism of disaster management in India? How does it collectively respond to a disaster?

- What are the strengths of the Armed Forces in handling disaster situations and how can they be enhanced?
- What lessons can be learnt from international experience in managing disasters?
- What can be done to optimise our disaster management structures and efforts to improve our response in disaster situations?

Literature Review

The lessons learnt from a disaster centuries ago are very much valid even today. The pattern is often repetitive and so the associated destruction, displacement and agony. Disasters have been documented adequately in official reports which provide a good database for shaping our strategy to minimise casualties. They analyse the pattern of losses in disasters and guide developing nations in risk reduction initiatives by highlighting cases of government initiatives which are noteworthy. **(DFID 2006)**¹

For instance, Water Boards in Netherland have proved very effective in their designated task of flood management in Netherlands and can be a model for developing nations. **(Lazaroms 2007)**² According to Gerristen, History of floods in the Netherlands is revealing in terms of the evolving response of a society to an imminent threat. **(Gerristen2005)**³ Research at International institute of Social science, Hague highlights the trust earned by elected

¹ Reducing the Risk of Disasters – Helping to Achieve Sustainable Poverty Reduction in a Vulnerable World:

A Policy Paper- DFID (MAR 2006)

² The Dutch Waterboards Model, Lazroms (2005)

³ What happened in 1953, H Gerristen, The big floods of Netherlands, Royal Publishing Society, 2005

representatives through responsible service to the citizens. This relationship stems from the basic needs of survival and evolution of a matured society.

(Brown 1979)⁴ Barbara Brown opines that citizens world over rightfully would like to know which governmental authority is to provide assistance to them during a disaster. They also need to be informed weather responsibilities to manage disasters have been assigned at the national and local levels. Affected citizens have queries on damage assessment agencies and the resources that can be immediately released for mitigation of the disaster.

Disaster Management Act 2005⁵ clarifies many of these issues in India by setting up Disaster Management Authorities at the centre, state and district levels. It initiates policy action on institutions, resources and guidelines for DM. It gives due authority for a specialised Response Force to be raised, trained and equipped for appropriate response in crisis. Section 23 of the act, provides that there shall be a DM plan for every state and outlines the requirements of consultation in its preparation.

(Jain, 2005)⁶ PC Jain opines that the response of State Governments in India is not encouraging. They have been progressively reporting higher number of affected population, damage to houses, damage to public utilities

⁴ Brown, Barbara. Disaster Preparedness and the United Nations. Pergaman, New York, 1979

⁵GOI, Gazette of India No.53 of 2005, the Disaster Management Act, 2005

⁶Food Mitigation practices in India', PC Jain, 2005.

etc. without adequate remedial action. Public participation therefore deserves a fair chance in India.

The approach to the preparation of the state DM plan should be holistic and address all the hazards the state is vulnerable to. It should take into account past lessons and build on the good existing systems at different levels. DM Plan should address the need to streamline operational and management procedures. **(MHA 2007)**⁷

Prevention, mitigation and Preparedness become focal points. Measures taken to reduce the vulnerabilities and the impact of the hazard are all critical aspects of mitigation plan. While preparedness covers the short-term aspects and includes the action necessary during the approach of a possible disaster. **(Sahni 2002)**⁸

(Zamecka 1999)⁹ Zamecka states that priority should be to have a sound framework for identifying risks; analysing risks; evaluating risks; accepting risk; and treating risk. Authors recommend a proactive approach, based on standard model, to facilitate the readiness component in disaster management. Authors have also attempted to provide a ready to use guide for organisations. The idea of a standard model being applied to any local government will pose its own limitations as communities are neither rational

⁷ MHA, National Disaster Management Guidelines. 2007

⁸ Sahni, Pardeep Disaster Mitigation – Experiences and Reflections. Prentice Hall, New Delhi 2001.

⁹ Zamecka, A. and Buchanan, G. Disaster Risk Management, 1999

nor homogenous entities. Armed forces however are a common source of strength for all. The organisational strength of the armed forces with their disciplined and organised approach and their skills in technical and human resource management make them indispensable for emergency situations. **(Sharma 2011)**¹⁰ Though armed forces have the capability and have always performed exceptionally, government must restrict their involvement in disaster operations. **(Vij 2007)**¹¹ Many veterans in relief and rescue operations who belong to the armed forces seem to resonate the point that armed forces should not be tasked with disaster management as a procedure. **(Khanna2005)**¹² Brig Khanna states that a comparison of international policies on this subject reveals that, many nations like China have legislation, to delegate enormous responsibility to the armed forces to aid and assist their citizens in disasters.

Besides this **websites** of national and international agencies on disaster management serve as an important forum for public education. SOPs of relief agencies like the IAF are also comprehensive in terms of timelines and actions in event of disasters.

The available literature thus has a wealth of information on the subject.

¹⁰ Dr Vinod K Sharma, Functioning of DM Org and methodology to cope with disasters in India, NCDM,IIPA, 2011

¹¹ Gen NC Vij (Retd), Disaster Management at National and State levels, U.S.I Journal, 2007/03

¹² Brig. (Dr.) BK Khanna, All you wanted to know about Disaster, 2005

Methodology

The data and information for the dissertation are drawn from personal experiences of people who have actively participated in disaster relief operations; Information is collated after interaction with rescue team members of the Army, Air force, NDRF, BRO etc in form of informal discussions and interviews. A standard questionnaire was used for covering entire gamut of activity before, during and after rescue operations. Informal interaction was also conducted with Government officials such as District Collectors, who have supervised disaster operations. NGO personnel engaged in earthquake relief and rehabilitation process were interviewed to elicit their side of the story. Data on international mechanisms has been collated through various books, periodicals and internet sites. Details are as given in bibliography. Interaction with municipal corporation officials and academicians during field visit to Hague revealed an excellent example of proactive approach to managing floods in Netherlands. A case Study on this issue summarises the findings.

Limitation

The paper has a limitation wherein findings will be specific to the Indian context though DM structure of some countries is also discussed.

Delimitation

The study will focus only on natural disasters and will not delve into financial aspects.

Chapterisation

Chapter two- Disaster Management Mechanism in select countries overviews the DM Structures in a cross section of countries; some developed and some developing. The focus here is on broad frame work of government bodies, the armed forces and their interrelationship. Idea is to extract some lessons from the best international best practices in the field.

Chapter three, Coping with Disasters- Flood Management in Netherlands is a study on perennial threat of floods in that nation. It focuses on how citizens there have learnt to live with the threat. We draw lessons from the Dutch experience and explore possibility of incorporating it in our context.

Chapter four, National Structure for Disaster Management traces the evolution of DM mechanism in India at centre state and district levels. It outlines the functions of important institutions and the changes brought in the last decade by the DM Act 2005.

Chapter five Role of Armed Forces in Disaster Management looks at the reasons which compel the nation to look up to the armed forces for relief when ever faced with a disaster. It looks at their organisation, roles phases besides the strengths. The research attempts to collate issues faced in the field by various rescue agencies with the help of interviews and questionnaires. It then recommends some long term and immediate measures to optimise their effort.

In Chapter six, A case study of the Sikkim Earthquake 2011, summarises the response of the state, armed forces and other agencies to a recent disaster situation in India. The inputs are compiled over extensive interaction with many of the participants in the DM operations both civil and military.

Lastly, chapter seven summarises the study and puts forward some recommendations for improving our response to Disasters.
