



CENTRE FOR LAND WARFARE STUDIES (CLAWS)

DISASTER MANAGEMENT: INTEGRATED RESPONSE STRATEGIES

04 SEPTEMBER 2014

EXECUTIVE SUMMARY

Introduction

A seminar on “*Disaster Management: Integrated Response Strategies*” was conducted on 04 September 2014 by Centre for Land Warfare Studies (CLAWS). The seminar was attended by officers from Indian Armed Forces, Central Armed Police Forces (CAPFs), research faculty from think tanks and academicians. Conducted over one session, the seminar focused on the existing disaster management mechanisms at national and state level and need for a comprehensive integrated model for timely and responsive response strategy. The panellists for the seminar were:-

- Gen NC Vij - Former COAS and Vice Chairman NDMA.
- Lt Gen Anil Chait, former CISC, HQ IDS.
- Dr Satendra, Executive Director, NDIM.
- Dr Amarjeet Kaur, Director, University Centre for Disaster Management Studies, IP University.

Key Recommendations

Restructuring NDMA

The NDMA has not been able to fulfil its deemed role due to various unrelated factors. It must be constituted of serving professionals from all key departments. It must be a vibrant entity to forecast likely disasters, coordinate resources and take timely steps to mitigate their effect. The designated officials must not have dual responsibility. In many states, disaster management effort is coordinated by Secretary Revenue. It indicates low level of priority for disaster relief.

Integrating Armed Forces into Disaster Management Structure

The Indian armed forces need to be given a charter, an institutionalised role for managing disasters in the country. For state governments the first preference for any disaster management is army. It is self-contained body, well-laid, has its own command structure. The army should have an institutional place in disaster management. Though CISC is part of NEC, senior functionaries of armed forces must be part of NDMA and SDMA. The army must not be the first respondent except for major disasters.

Mapping Disaster Zones

The disaster zones within the country are well known. Taking into account the past history of disasters as well as modern technology, a national disaster grid must cater for impending disaster by mapping likely potential areas, identify means to reduce their effects and re-locate rescue equipment at designated areas for quick deployment.

Regional Disaster Management Grid

Ten battalions of NDRF are inadequate immediate disaster relief. The units of armed forces and CAPFs can form the regional grid for quick rescue action. Resources earmarked for raising NDRF and SDRF battalions can be utilised for procurement of specialist rescue equipment and placed within the state under the nominated units.

Resource Integration and Singular Control

It has been observed in past disasters that every organisation seems to be working independently in the disaster area which at times, leads to duplication of effort as well as slows down rescue effort. All resources should be placed under one single entity for coordinated rescue effort. As armed forces usually have maximum strength in rescue effort, all resources of state and NDRF can be placed under the senior most army commander coordinating disaster relief.

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SEMINAR REPORT

Introduction

India due to its unique geo-climatic conditions, size and geographical entities has a high incidence of natural disasters like earthquakes, floods, cyclones and so on. Almost half the country is prone to earthquakes of medium to high intensity. Over 12% of India's landmass comprising 40 million hectares is prone to floods and soil erosion. 58.6 % of its landmass is prone to earthquakes and of the 7500 kms 67 % is prone to cyclones and 68 % to droughts. Floods in northeast India and in states of Assam, West Bengal and Bihar are recurring phenomena every year. As India did not have a structured framework for tackling disasters, the states were tackling disaster management with their own resources with active support of the armed forces.

Disasters disrupt progress of the area, major disasters push the economy back by years and it is the weaker sections of the society who get affected the most. The major error is looking at the response as the only part of disaster management, prevention, capacity building, mitigation, and rehabilitation also need to be looked into and require a dedicated organisation. This requires, funding, education and awareness. Disaster management structure was envisaged by the planners to have three functional levels, national, state and district. The capability build-up as well as the response mechanism was to be developed accordingly. Subsequently, NDMA came in being in September 2006 by enactment of the Disaster Management Act of 2005 by the Parliament. It is the apex body for laying down policies, plans and guidelines for quick an effective response for disaster management. It has four divisions namely, Information and Technology, Policy and Plans, Capacity building and Training and Mitigation. Its eight members, each having a Minister of State rank head a disaster specific division and are responsible for a wide array of tasks ranging from disaster mitigation, floods, earthquakes to training, encompassing the entire spectrum of disasters.

The NDMA lays down policies, plans and guidelines for disaster management to ensure timely and effective response to disasters. Consequently, State Disaster Management Authority (SDMA), headed by the chief minister at state level and District Disaster Management Authority (DDMA) at district level are supposed to be the backbone of disaster management blueprint. The Ministry of Home Affairs is the nodal agency at the national level for coordination of response and relief in the wake of natural disasters. The National Executive Committee (NEC) under the Home Secretary is responsible for a coordinated response in the event of any threatening disaster situation or disaster. The National Disaster Management Operations Centre (NDMOC) planned at NDMA is mandated to carryout tasks of capacity development, training and knowledge management. Ten Battalions from the Central Armed Police Forces (CAPFs) form part of National Disaster Response Force (NDRF). Headed by a Director General, NDRF is the designated quick response force, to be the first respondents in case of any disaster. The NDRF battalions drawn from CRPF, BSF, CISF,

SSB and ITBP are spread all over the country and have been assigned specialist tasks like nuclear mitigation apart from normal rescue duties.

The Ministry of Home Affairs is the nodal agency at the national level for coordination of response and relief in the wake of natural disasters since 2002. The responsibility earlier was entrusted to Ministry of Agriculture. The National Executive Committee (NEC) under the Home Secretary is responsible for a coordinated response in the event of any threatening disaster situation or disaster. The Chief of the Integrated Defence Staff forms part of NEC. The Government of India has also nominated nodal agencies for giving early warning in case of disasters. All the nominated nodal agencies are duty bound to provide early warning of impending disasters to the respective state governments so that necessary mitigation steps are taken at all levels. Some of the responsibilities are enumerated below:-

- Cyclone, Heat and Cold Wave warning - Indian Meteorological Department.
- Tsunami- Indian National Centre for Oceanic Information Services
- Floods - Central Water Commission
- Landslides - Geological Survey of India
- Avalanches - Snow and Avalanche Study Establishment

The basic responsibility of rescue and providing relief during occurrence of a disaster is of the state government. The effort is supplemented by the centre by providing additional logistical support in terms of specialist teams of armed forces and other agencies along with the necessary equipment. An analysis of all rescue efforts during the recent disasters shows that the majority of rescue teams every year are derived from the armed forces, which function under the Ministry of Defence whereas the NEC headed by the Home Secretary is responsible for coordination of all rescue efforts. The last year's floods and ensuing tragedy at Uttarakhand once again highlighted the under preparedness of the national and state machinery while dealing with disasters. It was the herculean effort of the Indian Army and Indian Air Force with over 11000 soldiers, variety of aircraft and equipment who rescued over 63,000 thousand stranded pilgrims and escorted them to safety. Waves of sorties coupled with valiant effort of foot soldiers working 24x7 saved precious lives.

It has been seen that since establishment of NDMA in 2005, there has not been any worthwhile capacity enhancement in managing disasters. The NDMA is presently only providing guidelines and policies which are inadequate for mitigating and formulating an effective response to disasters. The massive organisation staffed by retired personnel, multiple committees from various ministries had led to a slow response cycle. The Odisha cyclone of 1999, earthquake in Gujarat in 2001, 2004 tsunami and many more are reminders of collective failure to have a comprehensive rescue plans in place. Having seen ineffective response mechanism during the Uttarakhand tragedy, it is prudent that restructuring for a responsive action is a necessity.

Shortcomings in the Present Structure

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equipment. An analysis of all rescue efforts during the recent disasters shows that the majority of rescue teams every year are derived from the armed forces, which function under the Ministry of Defence whereas the NEC headed by the Home Secretary is responsible for coordination of all rescue efforts. This mismatch results in no organized role for the armed forces in the disaster management process. The NEC, highest body for planning the response mechanism to disasters did not meet from 2008 to 2012 showcasing the casual government response to managing disasters. The National Disaster Plan (NDP), planned to provide a comprehensive and detailed arrangement for disaster management has not been formalized till date. The NDMA is presently only providing guidelines and policies which are inadequate for mitigating and formulating an effective response to disasters. Numerous projects approved and commenced were either abandoned midway or it was a duplication of effort as reported in the CAG report tabled in March 2013.

The NDRF has only ten battalions, woefully inadequate to provide any meaningful assistance when required as they are dispersed all over the country. Given the size of our nation, a standing separate organisation will not fulfill the desired role nor is it required, given the availability of a number of CAPF units apart from armed forces units readily available at various locations all over the country. The raising of State Disaster response Force (SDRF) will similarly be a non-starter due to limited dedicated force level. Since inception, NDRF has carried out 73 response operations all over the country. In comparison, Indian Army provided 150 teams in 2012-13 in aid of civil authorities as per Ministry of Defence Report of 2012-13.

Response Mechanism

The Uttarakhand disaster highlighted the knee jerk response to the ensuing tragedy. With no coordinated effort in the initial stages, the magnitude of the tragedy was not understood, resulting in unnecessary loss of lives. The early warning from the Central Water Commission (CWC) along with alerts from the Meteorological Department should have provided enough inputs to NDMA to plan and war-game rescue efforts by first week of June 2103. The CWC website provides a detailed account of flood forecast giving details of rise in water level of the river in a particular area. The warnings were seemingly ignored in case of Uttarakhand. With many states of our nation being prone to natural disasters like floods, earthquakes and so on, it is essential that tangible efforts be made to minimize the impact of a disaster similar to Uttarakhand tragedy.

Structural Changes

The NDMA being the Apex body in disaster management, it must be the hub of forecasting, early warning, detailed planning, systematic deployment of rescue resources, continuous monitoring and assistance during the rehabilitation phase. Its members must be serving personnel. As the armed forces have the largest pool of disciplined and dedicated manpower and are always the first respondents, the NDMA can be headed by a senior officer directly responsible to the Prime Minister. Since the NDMA Act mandates the Home Secretary as the overall coordinator, both the offices of Home Secretary and Vice Chairman NDMA can work in synergy to optimize the rescue efforts. The members of NDMA must comprise of representatives from Armed forces, Meteorological Department, CWC, ISRO among others to present a comprehensive response plan

and not merely issue guidelines. A detailed NDP must be worked out and promulgated within the next two years taking into being the inherent capabilities of various organisations.

NDMA's response centre, NDMOC must be a integrated responsive nerve-centre working 24x7, in direct communication with state level centres for effective information sharing and coordinating rescue efforts. The response centre has to function as a single point information dissemination source rather than each nodal agency passing information in its own chain and compounding the recipient's woes with conflicting data. There must be an in-house capability of simulating likely disasters and their effects on the affected area so that correct remedial and early warning actions can be taken. Instead of a generalized warning like heavy rainfall, a specific warning giving out likely areas to be waterlogged and timely evacuation can prevent casualties.

Regional Disaster Management Grid

A number of battalions of army and CAPFs along with their regional headquarters are located all over the country. They must be integrated together to form a regional disaster management grid. Each state should work out its disaster prone areas requiring assistance, like the flood prone areas and allocate and place resources nearby for faster deployment. The highest headquarter, irrespective of the organisation must be the local controlling headquarters. The regional grids must be in direct communication with the NDMOC and the state response centres. The regional grids must form part of the NDP. The present separate standing organisation of NDRF will then not be required as it's force levels are inadequate to meet the national requirement.

Resource Integration

There were a multitude of agencies like the Army, Air Force, ITBP, NDRF, state agencies, NGOs, private groups etc deployed in the disaster zone during Uttarakhand floods. All agencies were working independently, passing information in their own chain of command and coordinating relief as a standalone group. The synergy between various agencies was lacking. The armed forces being an organized, disciplined and capable force are always the first respondents during any natural calamity due to their expertise, outlook and tendency of the local administration to seek assistance at the first instance of a disaster. Hence, it is imperative that their application be closely integrated with the state resources for a comprehensive response strategy.

Singular Control

A large number of agencies during Uttarakhand relief efforts led to diversion and under utilisation of resources and low levels of coordination. Also, comments and views by numerous personalities in print and visual media presented a distorted view of the scale of the disaster and relief operations. It is imperative that all resources be at the disposal of a single nominated person. Given the fact, that Army will always be the first respondent, the senior most Army Officer must be the controlling authority for relief operations. The very presence of Army Commander Central Command at various relief camps and his long walk with the stranded pilgrims was morale booster for all and was leadership at its best.

Information Sharing

The magnitude of the Uttarakhand disaster was known only after the initial reports started trickling in and they also presented an incomplete picture. Also, it was noticed that once the rescue efforts had stabilized, everyone wanted to be on the electronic media to give his version or praise his own organisation's efforts. Perhaps, in future, a Central Briefing Centre could be activated at the in event of a disaster relief operation to provide a single point comprehensive brief on a daily basis to the media so that an accurate assessment is available to all.

Recommendations

Restructuring NDMA

The NDMA has not been able to fulfil its deemed role due to various unrelated factors. It must be constituted of serving professionals from all key departments. It must be a vibrant entity to forecast likely disasters, coordinate resources and take timely steps to mitigate their effect. The designated officials must not have dual responsibility. In many states, disaster management effort is coordinated by Secretary Revenue. It indicates low level of priority for disaster relief.

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effort. All resources should be placed under one single entity for coordinated rescue effort. As armed forces usually have maximum strength in rescue effort, all resources of state and NDRF can be placed under the senior most army commander coordinating disaster relief.

Conclusion

The Uttarakhand disaster also highlighted the need for a robust disaster management framework within the country. Integration of resources and coordinated rescue efforts will lead to low levels of casualties and save precious lives. All government entities have to synergise their efforts to mitigate disaster effects. The structure of NDMA, state agencies needs an urgent overhaul for an organized and timely response.