Armed Forces in Disaster Response: Role Reappraisal

Alok Raj

Need for Role Reappraisal

From times immemorial, the Indian armed forces have always done a commendable job, when called to aid civil authorities, especially, in the wake of natural calamities or man-made disasters. Although, the armed forces are supposed to be called upon to intervene and take on specific tasks only when the situation is beyond the capability of civil administration, in practice, they are the "core of the government response capacity" and tend to be the first responders of the Government of India in a major disaster. Both the government and the public repose tremendous faith in the armed forces and believe that all emergencies and crises can be handled by the armed forces effectively. That notwithstanding, there appears to be a growing concern in some quarters, within the 'defence fraternity', that, of late, the armed forces are over-involved in aid to civil authority. There are two divergent views on this: one recommends dampening our response and discourages over-enthusiasm; the other recommends a larger, proactive and more participative role². However, in view of an increasing propensity on the part of the civil administration to requisition them for incidents of a routine nature, there is an urgent need to carry out reappraisal of the role of the armed forces in aid to civil authority, especially in contingencies relating to disaster management.

The Indian armed forces have rendered disaster aid to a number of countries in the past, adding yet another dimension to the international disaster response. A number of neighbouring countries look up to India on many a front, especially when struck by a major calamity. With growing regional and global cooperation in disaster reduction and response, the Indian armed forces can play a vital role befitting India's emerging status of a regional power.

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Secondary Role of Armed Forces

The primary role of the armed forces relating to the defence of the country against external and internal threats is unambiguous and needs no deliberation. The secondary role of the armed forces in aid to civil authority is a constitutional obligation, although as an instrument of last resort. The armed forces can be called out to aid the civil authorities to meet various contingencies³, as follows:

- To maintain law and order.
- To maintain essential services.
- To assist in natural calamities.
- To assist in execution of developmental projects.
- Other type of assistance which may be sought by civil authority.

However, based on interactions held with a number of Service officers from across the country, it can be stated that there have been a large number of army columns and engineer task forces (ETFs) deployed every year, especially in the last six to seven years, all on account of the secondary role of the army.

Clearly, there seems to be a consistently rising trend in involvement of the army in "Aid to Civil Authority." However, of this, the army columns / ETFs have been involved in disaster management contingencies only a few times. On most occasions, army columns are called out to assist the local administration in roles other than emergencies / disaster management. Hence, the argument relating to "dampening of our response and to discourage over-enthusiasm" is applicable to aid to civil authority only in situations other than disaster management. Aid to civil authority in cases of disasters has to be viewed as a special emergency and tackled with full enthusiasm and the synergistic efforts of both the civil administration and the armed forces. While the slow onset of disasters like droughts and to some extent, floods, may be managed without the aid of the military, sudden disasters like earthquakes / tsunamis would require an emergency response where military resources may need to be deployed.

Role of Armed Forces in Disaster Management

Although there is no need to prioritise the various secondary roles of the armed forces, aid to civil authority in the case of disaster management needs no clarification or emphasis. However, an important issue is the interpretation of the term 'disaster' in the issue of aid to civil authorities. Disaster by definition is an event of natural or man-made causes that leads to sudden disruption of normalcy within society, causing damage to life and property to such an extent,

that normal social and economic mechanisms available are inadequate to restore normalcy. Therefore, technically, the armed forces need to be requisitioned by the civil administration only if the situation is clearly beyond the control and capacity of the local administration. It does not necessarily mean that the armed forces will only be pressed into service after exhausting the resources and efforts of the civil administration in case of a disaster. Sequential deployment of

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rescue and relief resources, or a graduated response by various entities to emergencies is fraught with the dangers of delay, and the situation going beyond control. Ideally, a quick and comprehensive assessment of the required response to a disaster or impending disaster is needed. This will facilitate deployment of the necessary resources, including the armed forces elements, without loss of time, to limit the damage and losses to a minimum.

Can the Armed Forces be Called Only After Occurrence of a Disaster?

The disaster management cycle consists of six stages: Prevention, Mitigation, Preparedness, Response (Rescue and Relief), Rehabilitation and Reconstruction. However, the armed forces are traditionally called to assist in the response stage of the disaster management cycle for search, rescue and relief. This is also the stage where losses can be minimised and lives saved by rescuers acting swiftly and in a professional manner. Time, at this stage, is always at a premium. Hence, this is the most crucial stage of the "Disaster Management Cycle" and timely and effective employment of the armed forces in search, rescue and relief operations can pay rich dividends in terms of limiting damage and saving lives. However, can the armed forces be called only at the rescue and relief stage? What if a major disaster is forecast and heavy losses appear imminent? Can it be assumed that the impending situation is within the means of the local administration or otherwise? There is no clear-cut answer to this question. However, there can be a few scenarios, where deployment of the armed forces, just before occurrence of a disaster may result in saving lives and property.

Consider the scenario of an early warning of a tsunami of the magnitude of the tsunami of 2004, that caused havoc in India and the South Asian countries. In case of an early warning, immediate assessment of such a disaster would warrant large scale actions entailing early warning to the masses, evacuation from vulnerable

areas, and adequate reaction time to launch rescue and relief operations adopting a proactive approach. Review of the situation may also highlight that the magnitude of the impending disaster is so high that the efforts of the civil administration would be woefully inadequate, necessitating assistance from the armed forces. Though the armed forces are always alert and stay abreast with the news and weather forecasts, it would be prudent for the civil administration to keep the armed forces formations / units in the picture of the developing crisis and / or even warn in advance to avoid any loss of time in deployment. While mechanisms of this kind exist in a number of states, they need to function with the requisite seriousness. Hence, sometimes, the civil administration may have to requisition aid from the armed forces in anticipation, even before the occurrence of a major disaster. However, such requisitioning should be resorted to only in critical circumstances and only once the civil administration has done its homework (detailed analysis of emergency, available resources to respond and anticipated shortages and infirmities) and is confident its own response will not measure up to the enormity of the emergency.

The decision by the civil authority, whether to requisition, and when to requisition, the armed forces' aid is a crucial one, and must be made very judiciously, to ensure that the armed forces are called out only as a last resort. Also, when employed, that they are utilised to their full potential, with minimum loss of time.

Requisitioning Armed Forces for Disaster Management by the Civil Administration

The fine judgement to requisition the armed forces' aid, in case of a disaster, has to be made by the civil authority itself. This decision-making will be facilitated if the civil administration (district/state) is geared up with all the inputs relating to the emergencies in their state, more importantly, the following:

- In areas prone to disasters, multi-hazard mapping of their area of iurisdiction.
- Details of stake holders based on a Vulnerability Index.
- Assessment of likely losses based on magnitudes of various disasters/ emergencies.
- Existing disaster management apparatus at district / state levels and their capacities to deal with the disasters.
- Requirement and availability of the armed forces units and formations in the region or in the vicinity.
- Response time needed for the armed forces units / formations to fetch up at the site of disaster.

Once all of the above or most of the inputs are available with the civil administration, they will be able to make a comprehensive, yet quick assessment of whether can they manage the disaster rescue and relief on their own or would need the assistance of the armed forces to deal with the emergency. With the growing emphasis on disaster risk reduction initiatives in India, a lot of effort has been made in the country to carry out hazard mapping and vulnerability evaluation, yet a lot more needs to be done in all the states in this regard.

Sometimes, the civil administration may have to requisition aid from the armed forces in anticipation, even before the occurrence of a major disaster.

The growing tendency of over-insuring, and not having faith in own civil setup to deal with emergencies, has led to unjustified deployment of the armed forces sometimes, which is detrimental to the latter's primary role. There is, therefore, a need to sensitise civil administration officials at the district/state level that disaster management is the function of governance and the armed forces should be requisitioned keeping the principle of 'last resort' in mind.

Obligation of Armed Forces When Requisitioned by Civil Administration

There appears to be ambiguity in the understanding on the part of a few commanders and staff on whether every requisition for aid to civil authority has to be complied with. Once again, discretion, about whether to respond or not or whether clarification is required from higher headquarters (HQ), has to be exercised by the commander on the ground. Normally, requisition by the civil administration for assistance in case of a disaster is almost always complied with. There being little or no reaction time, such requisitions for rescue and relief will have to be acted upon without loss of time. However, requisitions such as evacuation of a civilian trapped in a hole, recovery of a dead body from waters and such requests, which do not fall within the ambit of "disaster rescue and relief" may be declined or executed only after due clearance from the higher HQ. When approached for aid to civil authority and in cases of ambiguity, unit / formation commanders may advise the local administration to route their request through the Ministry of Home Affairs (MHA) channels. In view of availability of state-of-the-art communication facilities, it is now possible to seek clearance from higher HQ without any loss of time.

What is, however, more important is the need to impress upon the civil

administration to de-requisition the armed forces as soon as the rescue and relief operations are over. Deployment beyond 10 days necessitates Ministry of Defence (MoD) sanction. The methodology of employment of the armed forces columns remains the professional discretion of the commanders in the chain. The armed forces units deployed for disaster rescue and relief have to guard against being used as a well organised labour task force for unauthorised tasks/menial jobs. A good mutual understanding between the civil set-up and local armed forces units / formation HQ will go a long way in ensuring just and optimum utilisation of the armed forces' capacities in disaster management.

Futuristic Scenario of Climate Change, Development and Disasters

At this stage, it will be prudent to peep into the future and visualise likely commitments of the armed forces in disaster management. There are growing concerns the world over about global warming and climate change, with resultant ill effects and conditions leading to triggering of disasters. Sir Nicolas Stern in his review on "The Economics of Climate Change" has highlighted the following.⁵

- There will be more examples of extreme weather patterns.
- Extreme weather could reduce global gross gross domestic product (GDP) by up to one per cent.
- Melting glaciers would increase flood risks and cause water shortage for one in six of the world population.
- Droughts will create tens or even hundreds of millions of 'climate refugees'.
- Floods from rising sea levels could displace up to 100 million people.
- Rising sea levels could leave 200 million people permanently displaced.
- Crop yields would decline.

While the above is applicable at the global level, India is one of the Asia's largest and probably most vulnerable countries, and is greatly exposed to a variety of natural disasters. Of the 35 states and union territories, as many as 27 are disaster prone. And if the perceived threats due to other man-made disasters such as chemical and terrorist attacks are added, every square inch of India is vulnerable, calling for immediate attention and sustained effort. Several studies have indicated that the disaster scenario in India is likely to become more adverse in the coming years and decades, due to the effects of global warming and climate change. There is also a well established and intrinsic link between development and disasters. Poor developmental strategies implemented with utter disregard to safety, specially in the urban areas, lead to disasters. Developmental activities compound the damaging effects of natural calamities,

as witnessed in India in the last two decades. Cases in point are the floods in Rohtak⁹ (1995) and Mumbai (2006). Driven by political and personal gains, ad hoc land-use decisions are a common practice in our country which results in increased population pressures and disaster risks. Unmindful and haphazard development results in increased disaster risks, leading to man-made disasters and avoidable loss to lives and property. Given the lack of sensitivity to the root causes viz climate change and haphazard development, the futuristic scenario is not very encouraging and needs radical measures to the of problems environment protection and development.

The growing tendency of over-insuring, and not having faith in own civil set-up to deal with emergencies, has sometimes led to unjustified deployment of the armed forces, which is detrimental to the latter's primary role.

Reasons Necessitating Increased Deployment of Armed Forces in Disaster Management

Developing countries like India and other neighbouring countries in South Asia are highly vulnerable to climate change and with the ongoing rapid developmental activities, we may witness worse disasters in the times to come. Hence, it will not be inappropriate to assume that in spite of the raising of the National Disaster Response Force (NDRF) and State Disaster Response Forces (SDRF), the armed forces will continue to get embroiled in rescue and relief operations due to the triggering of disasters of unprecedented magnitude as a result of climate change and haphazard development. Eight NDRF units are presently deployed in nine locations across the country. Hence, in a number of cases, the armed forces may have to respond to a disaster even before the NDRF units, on account of their being located closer to the site of disaster than the NDRF units. Crisis management and managing disasters in remote and inaccessible areas where the armed forces are either deployed in the vicinity or due to their intrinsic capacity to reach such areas in an early time-frame would necessitate an active role of the armed forces, a case in point being the Kashmir earthquake (2005).

The next important aspect is the public faith in troops and resultant pressure on the administration to call the armed forces to provide succour to affected disaster victims. The reason why the armed forces are called upon to aid civil administration in the very first instance is the public outcry, growing political sensitivities and ever increasing media glare. No government or political establishment is willing to take a chance; hence, deployment of the armed forces in such scenarios becomes a play-safe option. Therefore, there is a need for a mechanism to carry out an audit, post-disaster, to examine whether deployment of the armed forces in aid to civil authority was done as a last resort or otherwise. This will help put a check on unwarranted deployment of troops when other governmental entities could undertake relief operations.

Another major reason necessitating deployment of the armed forces in disaster response could be in case of mass casualty events (MCE). The threat of nuclear, biological and chemical warfare (NBCW) is more pronounced today than ever before. With increasing intelligence reports of terrorist groups trying hard to acquire weapons of mass destruction (WMD) and terrorist strikes of the types of 9 / 11, MCE would surmount local capacities and necessitate deployment of the armed forces in disaster response.

Deployment of Armed Forces in Time, to be Effective in Disaster Rescue and Relief Operations

"First responders – last resort", is the basic principle for employment of the armed forces in disaster rescue and relief operations: first responder, meaning response by troops in the close vicinity of the disaster location first, on their own, in grave disaster situations, as was the case in the earthquake in Gujarat (2001), tsunami (2004) and Kashmir earthquake (2005). There has been a perceptible improvement in coordination between the armed forces units / formations and local civil administration in the last few years. But, much remains to be done to plug loopholes and achieve the desired synergy between the local civil and military set-ups, to optimise the outcome of the effort in case of a disaster. As per an article of the Times Foundation on disaster preparedness, a number of case studies have highlighted a major flaw in our disaster response as "inadequate coordination with the army and other Service organisations." A few important points are as given below:

• Though quoted for military conflicts, Sun Zu's famous reference on "knowing the enemy and knowing yourself" to win each battle is equally applicable to combating disasters. District / state civil administrations must know their own capabilities and infirmities pertaining to disasters and their ability to deal with them. To that extent, a SWOT (strength, weakness, opportunity and threat) analysis at district / state / regional level will not only highlight the grey areas and weak links in the disaster management apparatus, but will help a great deal in generating strategies to deal with threats.

- There is also a need to carry out an exercise of 'scenario building'. This will help visualise various scenarios which may emerge in the region to enable listing out emergencies and contingencies.
- The civil administration needs to carry out a self-reappraisal of capabilities to be able to identify contingencies necessitating assistance from the armed forces in disaster relief.
- There is a need for a mechanism to carry out an audit, post-disaster, to examine whether deployment of the armed forces in aid to civil authority was done as a last resort or otherwise.
- The armed forces are usually involved in the training and operational preparedness for their primary role. Therefore, the civil administration should ensure that the local armed forces units and formations are kept in the picture of a developing disaster situation and all disaster management related information is shared with them.
- The civil administration must have the contact details of commanders and staff officers of local armed forces units/formation HQ, who should be contacted for coordination. Periodical review and coordination meets should be organised to remain updated. Besides, reliable communication arrangements based on line and radio should be ensured, with the necessary built-in redundancy.
- Joint training and mock exercises between the civil disaster management apparatus and local troops should be carried out from time to time to review operational preparedness and identify infirmities in the joint response to a disaster. These exercises will help review the procedures, communications, and develop mutual faith and rapport.

While some of the states like Gujarat, Tamil Nadu, Andhra Pradesh Karnataka, West Bengal and Delhi have addressed most of the above mentioned issues, there is enough scope for improvement in most of the other states. The measures given above comprise an important input for the formulation of disaster response plans at state and district levels. This list of measures is not exhaustive and many more measures can add value to own joint disaster response.

Role of Armed Forces in International Disaster Response

The Indian armed forces, have, in the last one decade, been involved in disaster response at the international level, especially in South Asia. With growing regional and global cooperation on the issue, many countries look up to India in case of emergencies. Recent instances of rendition of aid further underline the international dimension of the Indian armed forces' response and relief capacity:¹¹

- Katrina Disaster. In the aftermath of Hurricane Katrina, approximately 25 tonnes of disaster relief supplies were dispatched in an IL- 76 sortie to the USA on September 9, 2005.
- Philippines Mudslide. In the aftermath of extensive mudslides in Leyte (East Philippines) on February 17, 2006, approximately 30 tonnes of disaster relief supplies, including medicines, were dispatched in an IL-76 sortie to Philippines on February 22, 2006.
- Indonesia Earthquake. In the aftermath of the extensive earthquake in Jakarta (Indonesia) on May 27, 2006, approximately 86 tonnes of disaster relief supplies, including medicines, were dispatched in two IL-76 sorties and INS *TABAR* to Indonesia in May / June 2006.
- **Lebanon.** Similarly, during the recent crisis in Lebanon, 3,200 blankets and 225 tents were dispatched to Lebanon on August 18, 2006

Additionally, our armed forces have, on a number of occasions, assisted Pakistan, Sri Lanka and Bangladesh and other neighbouring countries, as in the aftermath of the tsunami (2004) and the Kashmir earthquake (2005). The armed forces play a major role in building our national image in world fora. Disaster response / assistance to India's neighbours and other countries in the region can go a long way in establishing our status as a major regional power besides demonstrating the Indian culture of *helping humanity sans frontiers*. Hence, the armed forces can expect a significant role in disaster response in South Asia and even in far off countries in the times to come. The response to disasters in other countries has a number of additional operational, logistic and diplomatic dimensions and will have to be planned, on the lines of out of area contingencies (OOAC). Operational capacities of the formations / units earmarked for such tasks will have to be built to be able to respond to emergencies, professionally and in keeping with the best global standards.

Survey to Ascertain Views from the Environment

A survey of the environment was carried out to ascertain the views of both Service

officers as well as civilians associated with disaster management functions and studies. A large number of Service officers from the three Services with 20 to 35 years of service from across the country were given a questionnaire (refer Appendix A). Likewise, responses to the same questionnaire were also sought from a wide cross -section of society, including civil officials, disaster management experts, nongovernmental organisation (NGOs) and personnel associated with disaster management. A sample of 70 responses, including 30 responses from civilian experts in disaster management were analysed (refer Appendix B). The findings

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are quite interesting and the same are summarised below:

- Most of the respondents (65.7 per cent) feel that the state of disaster management coordination between the civil administration and units / formations of the armed forces needs improvement while 17.1 per cent feel it is unsatisfactory.
- A miniscule 4.3 per cent of the respondents feel that the civil administration always keeps the local armed forces units / formations HQ informed of developing disaster situations in the region while the majority (68.6 per cent) feel they do so "only when required," though it is desirable that the armed forces be kept informed.
- As regards the timings of deployment of the armed forces in disaster response, 48.6 per cent of the respondents feel that the troops are either deployed in time or just in time; 49.1 per cent feel that they are often deployed at a belated stage or when the situation is out of control.
- A majority (61.4 per cent) of the respondents feel that to avoid a graduated response, the armed forces may be deployed in anticipation of a disaster to limit losses based on a realistic assessment of a calamity. However, 27.3 per cent of the respondents are against deployment of troops in anticipation, fearing unjustified and sometimes wasted effort. Hence, deployment of troops in anticipation should only be done after a very comprehensive assessment of the emergency.
- While 46.1 per cent of the respondents feel that the database on hazard mapping of the region, vulnerability profile of the districts / state, existing disaster management apparatus in the region / state and other related

inputs is now held by the civil administration, 45.8 per cent feel that the same needs updating in many cases. These details are shared by the civil administration with local units / formations when required but the same needs to be further streamlined and institutionalised.

- Only 10 per cent of the respondents feel that the drills of contacting in case of disaster assistance from the armed forces are well tapped up / satisfactory, and the bulk (64.3 per cent) feel that the contact details are normally held by the local civil administration, but the same need to be updated from time to time. The drills of contacting need to be tapped up further.
- A majority of the respondents (57.6 per cent) feel that joint mock exercises
 pertaining to disaster response by the civil administration and the armed
 forces are not normally held.

The findings above are generic, only highlight the general impression of respondents on the issue and may not necessarily hold good for every state. There are certain states, and districts within the same state, which are very proactive in coordination with the armed forces in disaster management and some, on the other hand, need to come up to the desired mark.

Summary of Recommendations

It will be incorrect to state that nothing has been done by various entities / stakeholders in this regard. In fact, there is great amount of awakening on the part of all the stakeholders in disaster management in India. While some of the measures / recommendations may already be in practice in some states, what is lacking is the implementation and seriousness with which these are executed on the ground. The need of the hour is to emphasise implementation / execution of all the recommendations, in letter and spirit. A summary of the recommendations is as follows:

- Aid to civil authority in cases of disaster management is not normally declined as long as the term 'disaster' is interpreted correctly. However, military commanders should exercise caution for other requisitions and use discretion and, time permitting, take clearance from higher HQ.
- A post-disaster analysis should be carried out to ascertain if the disaster could have been managed by the civil administration. However, this should be only done if ambiguity exists and if there are varying views on the issue.
- The armed forces units and formations should be kept in the picture and informed by the local civil administration about a developing disaster situation.

- A graduated / sequential response in disaster management should be avoided and the armed forces deployed well in time to be effective. If the situation warrants, the civil administration may warn / requisition the armed forces' assistance in anticipation of a major disaster. Deployment in anticipation of a major disaster should only be resorted to in exceptional circumstances after a comprehensive assessment of emergency.
- need to enhance operational capacities, gear up their disaster response further and continue to acquit themselves with distinction when called to aid the civil administration.

The armed forces

- The armed forces should be deployed as a last resort but not always as the last. An assessment of the situation and need for assistance of the armed forces must be anticipated / ascertained by the civil administration.
- The civil administration should carry out a comprehensive "SWOT analysis
 and scenario building exercise" to be able to take considered decisions
 before requisitioning the assistance of the armed forces in case of a disaster.
- Joint mock exercises involving the local armed forces units and other stakeholders, based on various contingencies, should be organised to develop rapport and synergise the effort of disaster response. This is a major grey area which needs immediate attention.
- The formations and units earmarked for disaster response at the international level should be prepared and trained for the role on the lines of OOAC, and tri-Service mock exercises may be organised to develop operational capacities.
- Last, but not the least, is that the armed forces should not lose focus and get involved in disaster management at the cost of their primary role. A balanced approach to both the roles would have to be made.

Conclusion

With the growing threat of climate change and terrorist acts, the armed forces cannot be oblivious of growing probabilities of disasters and MCEs. While wars occur once in two or three decades, disasters strike with virtual regularity, almost every year, especially in India. These disasters result in heavy casualties and losses, much more than the casualties of conventional wars. The role of the armed forces in aid to the civil authority, in disaster management situations is well defined and unambiguous. While operational preparedness for disaster

complements preparedness for war, deployment in disaster management also affords great opportunities to the armed forces to win the hearts and minds of the masses, specially in areas affected by terrorism and communal strife. Hence, the armed forces need to enhance operational capacities, gear up their disaster response further and continue to acquit themselves with distinction when called to aid the civil administration. The important issue is the optimisation of the armed forces' potential in disaster rescue and relief by integrating them in the state apparatus and synergising all the efforts. Being a very important stakeholder, the armed forces should be formally recognised as part of the planning process of disaster management in the states rather than carrying out only a functional role. The civil administration should keep the principle of last resort in mind while deploying troops in disaster management, and derequisition them as soon as possible.

Notes

- 1. Disaster Management in India, A Status Report (August 2004) by MHA, pp 68 69.
- Col OS Dagur, "Managing Disaster Response Role of the Armed Forces," Centre for Land Warfare Studies (CLAWS) Seminar November, 2007, p. 1.
- 3. PK Mallick, "Role of Armed Forces in Internal Security: Time for Review," *CLAWS Journal*, Winter 2007, p. 70.
- 4. High Powered Committee (HPC) Report, 2001, Chapter 1, "Introduction," p. 35.
- 5. Nicolas Stern, "Review of the Economics of Climate Change," HM Treasury, London, October 2006.
- 6. Disaster Risk Reduction: The Indian Model, MHA (National Disaster Management Division), p. 3.
- 7. RK Bhandari, "Disaster Management in India: A New Awakening," *Disaster & Development Journal of NIDM* (New Delhi), p. 2.
- 8. "Capacity Development for Climate Change Adaptation: MoEF-GEF Climate Change Adaptation Project in India," *Tidings, NIDM Newsletter,* Vol II, June- August 2007, p. 3.
- 9. HPC Report, 2001, Chapter 1, "Introduction," p. 43.
- 10. "Gearing to Create Disaster Resilient Communities in India," Times Foundation article on the internet.
- 11. "International Humanitarian Aid," Indian Army Official Web Site : www. indianarmy.nic.in

Appendix A

Questionnaire

Armed Forces in Disaster Management and Coordination with Civil Administration

rmed forces are often first responders and the core of government capacity in disaster management situations. However, with paradigm shifts in disaster management in India in the past few years, there is an urgent need to examine various aspects of coordination between the armed forces and civil administration and related issues of disaster management.

(Please put a tick mark on your response)

Q1.What in your view is the state of disaster management coordination between the civil administration and units / formations of the armed forces?

(Excellent / Good / Needs improvement / Unsatisfactory / Bad)

Q2. The civil administration keeps the local armed forces formations / HQ informed of developing disaster situation in the region?

(Always/ Only when required / Sometimes / Once in a while/ Never)

Q3.What is your opinion on timings of deployment of the armed forces in disaster response?

(Deployed in time / Just in time / Prematurely / Rather belated stage / When situation is completely out of control)

Q 4.The armed forces are to be deployed only as a last resort in aid to civil authority. However, there is a view that graduated response should be avoided and the armed forces may be deployed in anticipation of a disaster

to limit losses based on assessment of a calamity. Do you agree?

(Strongly Agree / Agree? Neutral / Disagree / Never)

Q5. The efficiency with which the armed forces can render disaster assistance depends largely on the inputs / database provided by the civil administration on hazard mapping of the region, vulnerability profile of the districts / state, existing disaster management apparatus in the region / state and other related inputs. Are these details held by the state/ district administration? If so, are these shared by them with local units / formations?

Details Held by Civil Adm?

(All details held / Some details held / Not updated/ Not held /Do not know)

Details shared with armed forces?

(Always / Sometimes / When required/ Some details are shared / Never

Q6. Precious time can be saved if the local civil administration has 'contact details' and is aware of whom to contact in case of a need to seek assistance of the armed forces. Do you feel the drills in this regard in the state / states are well tapped up or need improvement?

(Well tapped up / Satisfactory / Need Improvement / Unsatisfactory / Need radical measures)

Q7.Joint mock exercises by the civil administration and armed forces are a prerequisite for disaster preparedness. Are these done at district / state level? (Very often/ Sometimes/Once in a while / No / Never)

Appendix B

Analysis of Responses to Questionnaire















