Chapter – VII:

Response System for Disasters

The efficacy of the government's role in disaster management is judged largely by the quality of 'response' and its effectiveness in minimizing loss of life and property of affected people. The response to disasters also tests the level of preparedness and provides valuable lessons for future planning.

NDRF Battalions at the disaster site

7.1 National Disaster Response Force

National Disaster Response Force (NDRF) was formed in 2006 as a specialist force with the capability to deal with all types of natural and man-made disasters. The headquarters was located at New Delhi and it had 10 battalions spread all over the country.

7.1.1 Formation of NDRF

A steering committee, headed by Home Secretary was formed in 2003 to review the progress of disaster response. The Committee decided to earmark eight battalions of Central Armed Police Forces (CAPFs) as specialised force for disaster response.

NDRF was raised in January 2006 by up-gradation and conversion of eight standard battalions of CAPFs[1] only after enactment of DM Act in 2005. Two additional battalions of NDRF were raised in October 2010. Thus, a total of 10 NDRF battalions were raised (May 2012).

[1] two each from Border Security Force, Central Reserve Police Force, Indo-Tibetan Border Police and Central Industrial Security Force

As per Section 45 of DM Act, NDRF was to function under the general superintendence, direction and control of NDMA. Accordingly, a separate NDRF headquarter was established in July 2009. Till then, though NDRF was functioning directly under NDMA, its deployment was being done by MHA.

7.1.2 Efficiency and effectiveness of response by NDRF

Audit findings are discussed below:

7.1.2.1 Manpower management

We noted critical gaps in the required efficiency and available resources of NDRF.

- In terms of the administrative orders issued (October 2010) by MHA, each battalion was to have a strength of 1149 posts including specialised posts such as medical officers, engineers, paramedics, technicians, electricians and other technical staff. Deficiency of 3071 personnel (27 *per cent)* was noted in audit (May 2012), of which specialised posts constituted 43 *per cent* (1318). MHA stated (December 2012) that the vacancy position was regularly forwarded to the concerned CAPFs on monthly basis to fill up the vacant posts. Efforts were being made to fill vacant posts on contract basis.

- We also noted shortage of manpower in NDRF Headquarters. NDRF stated that they had requested the concerned CAPFs several times but due to deficiency of personnel in CAPF itself, the vacancies could not be filled up.

We noted that during 2009-12, 18 to 27 personnel were attached from various battalions to Headquarters without the sanction of MHA.

NDRF stated that functioning of a full-fledged headquarter with all the required branches was not possible with available staff of 11 personnel. It also added that a proposal for creation of 33 posts was pending with MHA for sanction since 2009 and the headquarter was functioning by attaching personnel from NDRF units.

- We noted that 73 personnel of NDRF were attached with various CAPFs and there were 190 Lower Medical Category (LMC)[2] personnel in NDRF. Attachment of NDRF personnel with CAPF depleted its strength and presence of LMC personnel could impact the efficiency of the Force during disaster response. MHA stated (December 2012) that out of 73 personnel of NDRF, 35 personnel were de-attached by the respective force. Efforts were being made to detach remaining personnel from CAPFs formations. So far as LMC personnel were concerned, the CAPFs were asked to take back LMC personnel from NDRF.

- According to the NDRF Rules, 2008 personnel of a CAPF battalion deputed to NDRF were to remain posted in such battalion ordinarily for a period of five years. It was also decided (May 2011) that NDRF battalions should have a minimum 10 *per cent* of its personnel to constitute 'Core Group'. We noted that the list of such personnel were not finalised by MHA (July 2012).

- NDRF was constituted for disaster response with a single chain of command. We noted that the inter-battalion transfers of personnel were executed by concerned Directors General of CAPF only and not DG, NDRF. The matter was under consideration in MHA (December 2012).

[2] LMC: Force personnel with less than perfect physical requirements

7.1.2.2 Deficient system of training for NDRF personnel

NDRF required skill intensive, operation oriented training with demonstration and hands-on contents to effectively respond to disaster situations. NDMA had prepared the 'Training regime for disaster management' which was a detailed report on the training requirements of NDRF. We noted the following:

- There were constraints in providing specialised training to NDRF personnel. For advance courses training, NDRF personnel were sent to other government and private institutions such as DRDO[3] (for chemical emergency), BARC (for radiological emergencies)[4], HMI[5] Darjeeling (for mountain rescue) and defence establishments (Heli-slithering) etc. However, the training slots made available in these institutions for NDRF personnel were insufficient.
- NDMA decided (2006) to establish a 'National Institute of Disaster Response (NIDR)' to cater to the training needs of NDRF and also other stakeholders such as SDRF, CAPFs, Civil Defence personnel etc. The proposed Institute had not been set up so far despite government of Maharashtra having offered (November 2007), 110 acres of land for it at Nagpur and NDMA accepting it (July 2008).

7.1.2.3 Deficient infrastructure in NDRF

Three (2nd, 5th and 6th) out of 10 battalions located at Kolkata, Cuttack and Gandhinagar respectively were sharing accommodation with other CAPFs and even temporary infrastructure (pre-fabricated huts) for office, residential and storage accommodation could not be established for them. We further noted that MHA approved (November 2009 and April 2010) the infrastructure norms for each battalion of NDRF. Despite a proposal of ₹ 3171.58 crore being under consideration of MHA since December 2011, the standard infrastructure was yet to be created for the NDRF battalions (December 2012).

- NDRF headquarter was accommodated by constructing temporary huts at the roof-top of Civil Defence Secretariat Building. Similarly, a control room for NDRF operations was also housed in a temporary accommodation at the roof top of the Civil Defence Secretariat Building. However, this room was functioning without any power back up due to objection by 'Central Public Works Department' exposing it to disruption in operations. The proposal for provision of suitable accommodation was under consideration of MHA.

Temporary accommodation of NDRF headquarters created at roof top of Civil Defence Secretariat Building

MHA stated (December 2012) that NDRF had identified a suitable building for accommodating NDRF HQ and two teams of NDRF, and the matter was being processed. The Control Room of this HQ would be made fully operational after hiring of this accommodation.

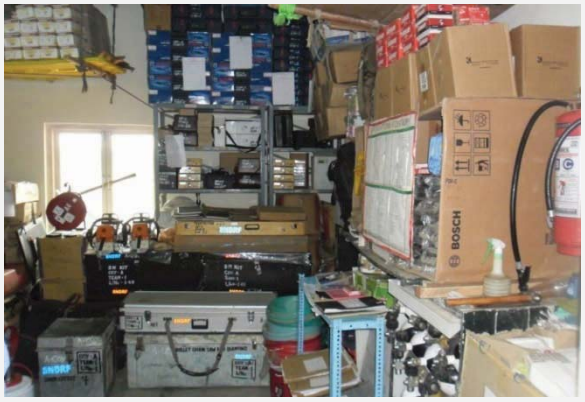
[3] Defence Research and Development Organization
[4] Bhabha Atomic Research Centre
[5] Himalayan Mountaineering Institute

Field Inspection of 8th battalion of NDRF:

We conducted an inspection of the base of the 8th battalion to visually assess the infrastructure facilities at the location of the battalion situated at Kamla Nehru Nagar, Ghaziabad. This battalion was raised in 2006 and is situated at this location since November 2011.

Fuel stored in open

We noted that there was no boundary wall surrounding the allotted land. The equipment and other material were stored in temporary rooms. There was lack of adequate space for storing these materials which led to their stacking. Certain equipment like portable generators and even the fuel for vehicles were stored in the open space. The NDRF personnel were accommodated in temporary tents at the site and the dwelling units lacked basic facilities.



Portable generators stored in open **Equipment stored in temporary rooms**

NDRF stated that location of 8th battalion falls under the green belt as per Ghaziabad Development Authority (GDA) master plan 2021 and thus permanent building structures cannot be built. The matter was being pursued by them with Ministry of Urban Development and GDA for settlement. NDRF further added that construction of boundary wall and permanent infrastructure would start only after clearance from GDA.

7.1.2.4 Non procurement of equipment for NDRF battalions

MHA in September 2006 approved procurement of 310 items for making NDRF battalions operational. Out of the 310 items, 198 items were to be procured by the respective DsG and 112 items were to be procured centrally. We noted that as of June 2012, 17 items could not be procured. Of these, procurement was in progress for 9 items, tender had been awarded for 5 items and 3 items were put on hold. The procurement of these items was delayed due to repeated re-tendering attributed to equipment not fulfilling the required technical specifications. This critical equipment, such as satellite phones[6] and hydraulic jack, is expected to play a pivotal role in rescue operations during a disaster.

We noted that the specifications decided by MHA were changed frequently by Specification Review Committee (SRC) constituted by NDMA, adding to the delay.

7.1.2.5 Idling of equipment

- Portable ultra sound machines were approved by MHA (September 2006) to provide medical relief during disaster response. Regular radiologist or trained General Duty Medical Officer (GDMO) in ultra sonography technique was required for installation of these machines. Six portable ultra sound machines were procured by DG, ITBP for NDRF units at a total cost of ₹ 36.66 lakh (March 2009). We however, noted that there was no regular radiologist or trained GDMO in ultra-sonography technique with NDRF. Therefore the machines were not installed even after two years of their procurement. Subsequently, two doctors of NDRF underwent ultra-sonography course after which these machines were installed in 2011-12 but were never put to use (July 2012) despite NDRF being deployed for various disasters like earthquake and floods. Further, only two doctors were available (July 2012) for operating these six ultra sound machines located at six different units of NDRF. The present arrangement had a risk of rendering the machines futile due to sub optimal utilisation. NDRF stated that efforts were being made to retain qualified doctors till other doctors get qualified in ultra-sonography. MHA stated (December 2012) that two NDRF doctors were already qualified in sonography and steps were taken to detail other doctors for the sonography course.

- NDMA purchased four Chemical, Biological, Radiological and Nuclear (CBRN) Hazmat vehicles for ₹ 16.04 crore in September 2010. Further, two Integrated CBRN Surveillance Vehicles and six Integrated CBRN Monitoring Systems were also procured by NDMA in September 2010 at a cost of ₹ 12.64 crore for use during CWG-2010. These CBRN vehicles and equipment were handed over to NDRF after completion of CWG-2010 and were stationed at 8th NDRF battalion, Ghaziabad.

CBRN Vehicles at 8th NDRF battalion

[6] The need for satellite phone was felt during response by NDRF in the aftermath of Sikkim earthquake in September 2011

We noted that there were technical deficiencies in these vehicles which had not been rectified by the supplier. Against an amount of ₹ 16.04 crore, NDRF had released ₹ 6.42 crore for Hazmat vehicles. Similarly, against an amount of ₹ 12.64 crore, NDRF had released ₹ 5.06 crore for Integrated CBRN Surveillance Vehicles and Integrated CBRN Monitoring System (June 2012). If the deficiencies in these CBRN vehicles and equipment were not rectified, they could serve no purpose in the eventuality of CBRN disasters. MHA stated (December 2012) that repair work of Integrated CBRN Monitoring System had been completed and repair work of CBRN Vehicles (Hazmat Vehicles) would be started soon.

- Under the National Emergency Communication Plan (NECP) – Phase-I, MHA procured VSAT equipment in January 2005 for various users including NDRF. We noted that the equipment were supplied to DCPW[7] by May 2006 but were installed between October 2008 and March 2009 after a delay of more than two years.

VSAT for NDRF headquarters was received by them in November 2009 but was not installed due to non availability of space and was stationed at 8th NDRF battalion. Thus NDRF headquarters was not using the system to communicate with its battalions.

Mobile VSAT

Further, a VSAT mounted on a vehicle to be used as Mobile Emergency Operation Centre was also stationed at 8th battalion NDRF from December 2011. It had not been made operational due to technical reasons (June 2012). MHA stated (December 2012) that at present sufficient space was not available to install VSAT at HQ, NDRF location and it would be installed after allocation of new accommodation.

7.1.3 Deployment of NDRF battalions

7.1.3.1 Standard Operating Procedures

Prior to January 2011, there were no Standard Operation Procedures (SOPs) for the deployment of NDRF and the deployment was done on behest of NDMA and MHA. We noted that NDRF battalions were deployed even for election duties till 2009-10.

In January 2011, SOPs on deployment of NDRF was prepared and sent to MHA for approval. MHA conveyed (February 2011) that the "SOP was for the use of concerned agencies and its constituents for effectiveness and efficiency of an activity to be carried out. As such, circulation of SOP of NDRF to the states and UTs was not advisable".

[7] Directorate of Coordination Police Wireless

NDRF deployed during a building collapse incident

As the SOPs prepared by NDRF had not been circulated amongst State Governments and UTs, there was no clarity regarding deployment of NDRF and the magnitude or intensity of disasters for which NDRF was to be deployed.

We found that NDRFs were being deployed even for small and localised disasters such as drowning cases, collapsed structures, car accident, etc.

MHA stated (December 2012) that deployment of NDRF would be done after consultation with respective Commandant under intimation to MHA and NDMA. In case of the requisition placed directly to NDRF battalions due to emergent nature of situation the Commandants would deploy NDRF personal immediately and intimate the same to DG, NDRF/MHA/NDMA.

7.1.3.2 Case study: Deployment of NDRF for the Sikkim earthquake

On 18 September 2011 at about 1812 hrs, there was an earthquake in Sikkim. MHA decided to send NDRF battalion on the same day for search and rescue operation. NDRF teams consisting of 403 personnel were airlifted from Hindon and Kolkata to Bagdogra air field on the night of 18 September 2011. From Bagdogra to Lauchan and Chungthan (North Sikkim), two teams were airlifted by Indian Air Force helicopters. NDRF was also deployed in Mangan area from Bagdogra in vehicles provided by civil administration.

Deployment of NDRF was in an area where there was already huge presence of Army and Indo-Tibetan Border Police engaged in rescue and relief work. NDRF was deployed by the State Government in those areas where dead bodies were trapped and could not be extricated. We found that NDRF team could extricate two dead bodies at Chungthan, two in Mangan area and one in Gangtok town.

Deficiencies noticed:

- A Post Emergency Response Team (PERT) which visited Sikkim after the earthquake stated in its report that NDRF battalions were not self-contained in respect to the food, water and shelters. NDRF personnel had to depend on local administration for essential items on the first day of reaching Sikkim till the time vehicles from Kolkata with supply of essential items reached Sikkim.

- There was no clear policy or procedure regarding the airlifting of NDRF personnel and material during disasters. Central Government provided airlift facilities in case of any disaster. Though each NDRF battalion was authorised to carry 140 tents along with it during deployment, due to paucity of airlift facility, 8th NDRF battalion of Ghaziabad could carry only 16 tents.
- When teams were air lifted by the Air Force, essential items like LPG, kerosene oil, etc. were not permitted to be loaded. Thus, NDRF battalion reached the disaster site without these essential items and remained dependent on civil agencies for these items.
- There was no clarity regarding mechanism for movement of vehicles for transportation of men and heavy equipment to the incident site. NDRF again depended on civil administration for transportation. NDRF team from Bagdogra air field moved in vehicles of the civil administration to the disaster site. Thus, instead of being self contained, they added more logistical responsibilities to the civil agencies already busy with rescue work.
- NDRF was deployed without identifying the extent of damage and areas for deployment causing confusion.
- Communication system was paralysed and the lack of satellite phones impaired the rescue operation at the time of earthquake.

From the above, it was evident that the NDRF battalion was ill equipped to deal with the situation. MHA attributed these deficiencies to mode of transport which created the hindrance.

Lessons learnt: These limitations in the working of NDRF were communicated by NDRF to MHA in October 2011 but even now SOPs for deployment had not been finalised and there were no prescribed protocols. Thus, no lessons were learnt from the limitations noticed during this disaster.

MHA stated (December 2012) that approval for procuring the ready to eat meal for NDRF Bns had been conveyed and same was now being procured by the Commandants of unit to avoid such dependence during the emergency response. It further added that NDMA had been approached to finalise the SOP and forward the same to all the states for better coordination during operation.

7.2 State Disaster Response Forces

National Policy on Disaster Management 2009 provided that the primary responsibility for disaster management rested with the states. Under the policy, the states were encouraged to create response capabilities from within their existing resources. To begin with, each state was to aim at equipping and training one battalion equivalent force known as State Disaster Response Force (SDRF). NDRF battalions and their training institutions were to assist the states and UTs in this effort. The states and UTs were also encouraged to include disaster management training in their respective Police Training Colleges and basic in-service courses, for officers.

In accordance with the policy, the Central Government had provided assistance for training of trainers. The State Governments were advised to utilise 10 *per cent* of their State Disaster Response Fund and Capacity Building Grants for procurement of search and rescue equipment and training of the Response Forces.

7.2.1 Raising and training of SDRF

We noted that till June 2012 only seven states[8] had constituted SDRF in their respective states.

SDRF- Jammu & Kashmir

We also noted that SDRF personnel were trained by NDRF battalions and the master trainers of the State Police were trained by NDMA. However, NDMA was not aware of the strength of SDRF battalions in the states. Till June 2012, only 244 Master Trainers and 714 SDRF personnel were trained by NDMA and NDRF.

[8] Bihar, Odisha, Rajasthan, Gujarat, Maharashtra, J&K, Nagaland

7.3 Regional Response Centre

The decision to establish Regional Response Centres (RRCs) was taken in October 2003 in the first meeting of the Steering Committee of MHA to review the creation of capacities for disaster response. The RRCs were to be manned and operated by Central Armed Police Forces established at various locations in the country. These Centres were to provide links for enabling NDRF battalions to respond to local flood, cyclone and other natural disaster situations.

MHA in 2004 sanctioned setting up of eight RRCs and seven Nodal Centres (in high altitude and hilly areas). We noted that three RRCs at Guwahati, Mundali and Arakkonam were manned and operated by NDRF as they were co-located with NDRF battalions. The remaining were manned and operated by CAPFs.

The following issues were observed regarding the operation of RRCs:

7.3.1 Equipment for RRCs

CAPFs were authorised to purchase 40 items of identified necessary equipment (@ ₹ 75.24 lakh per centre) to be kept in the RRCs to save time in carrying them to affected areas and make it easy to respond in case of emergency. However, CAPFs did not make their respective RRCs functional, despite the sanctions issued by MHA. The equipment which were procured and kept at respective locations were lying unused for want of proper guidelines.

CAPFs attributed (September 2010) the non-formation of RRCs and idling of equipment to shortage of accommodation and manpower, non-receipt of requirements from State Governments and lack of deployment of trained personnel of NDRF. MHA stated (December 2012) that the equipment would be utilised as and when these RRCs were deployed for disaster response.

7.3.2 Manpower for RRCs

RRCs were to be manned and operated by CAPFs as these centres were to be utilised for immediate response to a disaster till NDRF reached the affected area.

In January 2011, there was a proposal for deployment of suitable number of trained personnel of NDRF in the 12 RRCs/Nodal Centres. We noted that NDMA was of the view that manning of all RRCs by NDRFs would deplete their manpower and adversely affect its command and control during an emergency.

In the absence of clear policy through SOPs and guidelines for the functioning of RRCs, and also in the absence of clarity regarding running of these Centres, their effective use during a disaster was uncertain. Thus, there was no monitoring mechanism to oversee the proper utilization of equipment lying with RRCs.

MHA stated (December 2012) that it had been decided to keep the RRCs with CAPFs.

7.4 Civil Defence and Fire Service

In 2009 MHA formulated schemes relating to civil defence and fire services and Director General Civil Defence (DGCD) was designated as the implementing agency. These schemes were the pilot projects of MHA for formulating a full fledged scheme for fire services and civil defence in the country by transforming the fire services into a multi-hazard response force capable of acting as the first responder in all emergency situations.

Civil Defence (CD) in the country operated under the Civil Defence Act, 1968. Civil Defence included any measures, not amounting to actual combat, for affording protection to any person, property, place or thing in the country against any hostile attack (internal disturbances as well as external aggression) which endangered the security of any life, property, place or thing.

7.4.1 Revamping of Civil Defence set up in the country

MHA proposed a scheme for revamping Civil Defence by strengthening it, so that it could play a significant role in disaster management and assist the police in internal security and law & order situations, while retaining its primary role. The scheme was approved in April 2009 with an outlay of ₹ 100 crore as a Centrally Sponsored Scheme and was to be completed by March 2012. The expenditure was to be shared between the centre and the states[9] and the scheme was to be managed by DGCD.

MHA released an amount of ₹ 70.25 crore during 2009-12 against which utilisation certificates amounting to ₹ 48.91 crore were pending (June 2012). The scheme was extended by MHA up to 31 March 2013 on the ground of delay in release of funds during 2009-10[10]. We noted that the utilisation of funds amounting to ₹ 11.05 crore out of ₹ 14.72 crore released during 2009-10 was revalidated by MHA in September 2010. Thus, despite availability of funds, the scheme was not completed.

MHA stated (September 2012) that implementation of the scheme was with the State Governments and the Ministry was only releasing funds. However, due to tardy implementation of the scheme in various states, the entire budgetary provisions could not be released. The scheme was expected to be completed by March 2013.

We further noted the following issues in implementation of the scheme in the test checked states:

[9] Up-gradation of existing institutions, construction of new institutes, transport and equipment to 100 CD towns, pilot project, monitoring & evaluation and publicity under the scheme were fully funded by central government. Expenditure on training camps was to be shared with states on 50:50 basis and the states were to bear the recurring expenditure.

[10] States received funds during Jan/Feb 2010

7.4.1.1 Utilisation of funds by the States

- In Rajasthan, allocation under the scheme was ₹ 324 lakh for the financial year 2009-10 to 2011-12. Out of the budget allotment of ₹ 230.60 lakh, the State Government utilised ₹ 164.48 lakh under the scheme and ₹ 66.12 lakh remained unutilised (March 2012). Due to non furnishing of utilisation certificates by the state, the GoI did not release the balance amount of ₹ 93.40 lakh.
- In West Bengal, allocation under the scheme was ₹ 7.29 crore for the financial years 2009-10 to 2011-12. The State Government received ₹ 5.52 crore till July 2012. Utilisation Certificates were pending (July 2012) for ₹ 37.60 lakh. We further noted that the state did not provide its share and hence it had to forego the Central grant of ₹ 58 lakh for organising training camps and exercises and demonstrations. The state also diverted ₹ 15 lakh in March 2010 for construction of a new training institute at Kalyani in violation of the scheme guidelines.
- We also noted that in West Bengal, funds amounting to ₹ 1.40 crore meant for creation of physical infrastructure at 10 multi-hazard prone district towns were diverted to purchase (January to February 2012) rescue vehicles, ambulances and other equipment. False utilisation certificate was furnished in April 2012 indicating the amount as having been expended on upgradation and renovation.

7.4.1.2 Other issues of concern

- We noted that Government of India released funds of ₹ 8 lakh in June 2011 to Rajasthan but the State Government had allotted funds only in February 2012 to meet the expenditure towards camps, exercises and demonstration. Thus, only 1087 persons could be trained out of 1485.
- MHA envisaged (April 2009) setting up of new training institutes in 10 states and UTs which did not have a Civil Defence formation. In September 2009, Directorate of Disaster Management, ANI requested the Department of Civil Defence, Government of West Bengal to provide necessary guidelines, and Action Plan for establishing similar Institute in ANI. Nothing tangible was sent the Government of West Bengal. As a result, the project had not been taken forward.
- In West Bengal, the Civil Emergency Force under Civil Defence has a sanctioned strength of 533 under Group B and C categories of staff who were directly involved in rescue operations. We noted that the men in position decreased from 326 in April 2007 to 147 in March 2012.

7.4.2 Upgradation of National Civil Defence College

The objective of the scheme was to create an "Institution of Excellence" at the national level to train a professional cadre of trainers for disaster response and

recovery management. We noted delays at various stages of the project as detailed below:

October 2004	MHA approved a proposal for up-gradation of the National Civil Defence College, Nagpur at a cost of ₹ 15.01 crore.
March 2007	Target date of completion but extended up to March 2008.
April 2009	Target date was further extended up to 2009-10 with cost escalation of ₹ 3.94 crore.
March 2010	Target date again extended up to March 2011.
May 2012	Target date again extended up to March 2013 without any financial implications. Reasons for extension were non procurement of certain equipment.

The cost escalation was mainly due to delay at various stages and lack of monitoring by MHA and National Civil Defence College.

MHA stated (December 2012) that the cost escalation was mainly due to sufficient funds not been made available by the Ministry of Finance and the upgradation was expected to be completed by March 2013.

7.4.3 Strengthening of Fire and Emergency services

As per the report of Thirteenth Finance Commission, deficiencies of fire services in the country were:

- Fire stations - 97.54 *per cent*
- Fire fighting & rescue vehicles - 80.04 *per cent*
- Fire personnel - 96.28 *per cent*

In order to fill these alarming gaps in fire fighting and rescue capabilities, a scheme called 'Strengthening of Fire and Emergency services in the country' with an allocation of ₹ 200 crore was sanctioned by MHA in October 2009. This was to be completed by 2011-12. The main objective of the scheme was to strengthen the fire and emergency services in the country and progressively transform the fire services into multi-hazard response force capable of acting as first responder in all emergency situations.

The scheme involved capital expenditure for procurement of equipment worth ₹ 178.12 crore and training, advertising, monitoring & evaluation amounting to ₹ 21.88 crore. The scheme was launched in November 2009.

We noted that:

MHA released ₹ 134.56 crore out of sanctioned ₹ 178.12 crore to states for procurement of equipment during 2009-12.	• The states could utilise only ₹ 41.14 crore for procurement of equipment as of June 2012 • Rajasthan and Uttarakhand had not fully utilised the amount released during 2009-10. • MP, Meghalaya, Punjab, UP and WB had incurred 'nil' expenditure against the releases of 2010-11.

Out of ₹ 21.88 crore sanctioned for training, advertising, monitoring and evaluation, ₹ 16.58 crore was released during 2009-12.	• DGCD could utilise only ₹ 12.56 crore as of June 2012. • Study on "Fire and Hazard Analysis in the country" awarded in June 2011 at a cost of ₹ 5.74 crore was also not completed as of May 2012.

MHA admitted the savings under various components of the scheme. It added that as the study was a novel concept and was being carried out for the first time in the country covering both urban and rural areas, it took considerable time and hence the period had to be extended.

The scheme of strengthening Fire and Emergency Services could not be completed within the time schedule due to:

(i) delayed releases and less release of funds to states by MHA,
(ii) procedural delays in provisioning of funds to the states, and
(iii) delay in signing of memorandums with states.

MHA in May 2012 extended the scheme up to 31st March 2013 without additional financial implications.

Thus, benefits of modern technology in fire fighting and rescue capabilities were not extended to stakeholders as conceptualised in the scheme. It had also delayed the future plans for up-gradation of fire services and to fill the gaps in fire fighting and rescue capabilities in the country.

On this being pointed out, DGCD stated (July 2012) that there were delayed releases and even funds could not reach the State Fire Departments in time. It further added that signing of MoU with Jharkhand and Tripura was also delayed which led to extension of the scheme for another year.

MHA stated (December 2012) that there was neither any procedural delay in provisioning of funds to the states nor much delay in signing of the memorandums with the states. Considering that the scheme was being carried out for the first time in the country and the money was released to the states progressively considering their utilisation capacity, the scheme had to be extended for a year so that benefits of modern technology in fire fighting and rescue capabilities could be extended to the stakeholders.

7.4.4 Fire services in states:

- In Andhra Pradesh, out of 22 fire fighting vehicles at various fire stations in Kakinada, East Godavari district, 14 vehicles did not have fitness certificate to ply on the roads. Many items of fire fighting equipment in the district required repairs and were not in working condition and were to be condemned.

- In the three selected districts of Bharuch, Jamnagar and Kutch of Gujarat, we noted that there were 57 men-in-position against the sanctioned strength of 112 personnel in the Fire and Emergency Services wing of Municipality and Municipal Corporation. Of these 23 were on daily wages and contractual basis. Many of the critical posts such as Chief Fire Officer, Assistant Fire Officer and Firemen were also vacant.
- In Rajasthan, we noted that out of the total allotted funds of ₹ 21.35 crore, the state could utilise only ₹ 6.18 crore for procurement of equipment as of March 2012.

7.4.5 Upgradation of National Fire Service College

The National Fire Service College (NFSC) was established at Nagpur in 1956 to conduct training for the officers. No expansion in the original capacity of NFSC was made since its inception. Keeping this in view, a scheme on 'Upgradation of National Fire Service College' was approved by the Cabinet in March 2005 at an estimated cost of ₹ 103.95 crore. The scheme was to be implemented within three years and managed by DGCD. The objective of the scheme was to enhance the capacity of the NFSC to meet the requirements of specialised professional training aspects.

The scheme involved execution of civil works of buildings, procurement of training aids and equipment and purchase of lab items. The civil work was entrusted to CPWD.

We noted delays in various stages of the project as detailed below:

2006	NDMA opined that the scheme should be held in abeyance as CPWD did not possess the contemporary know-how.
October 2006	NDMA constituted a core group which recommended appointment of consultant to prepare a Master Plan.
December 2009	Cost estimate of ₹ 200.57 crore was approved by Home Secretary.
April 2010	Approval of 'Committee on Non-Plan Expenditure (CNE)' for the scheme at an estimated cost of ₹ 205 crore to be implemented in three years was accorded.
September 2012	Upgradation work was in progress.

MHA stated (December 2012) that because upgradation of NFSC was approved in 2005 it was revised in 2010 to construct specialised and modern technical state of the art facilities. Presently, the construction of building by the construction agency (CPWD) was progressing well as per the availability of funds.

Thus, even after six years of initiating the project, the up-gradation had not been completed. This was affecting the disaster preparedness capacities and obstructed the transformation of fire services into a multi hazard response force.

7.5 Medical preparedness

Medical preparedness for disasters aims to create an institutional mechanism and systems that would result in the coordinated working of emergency responders, hospital managers and local and regional officials.

7.5.1 Institutional arrangement for medical preparedness

The programmes and procedures suited to the needs of the people in the state are formulated and implemented by the State Governments. At the national level, health programmes are implemented by the Ministry of Health & Family Welfare (MoH&FW) which also plays a key role in augmenting the capacities at all levels including extending necessary help during disasters and emergencies. In the MoH&FW, the Directorate General of Health Services (DGHS) is responsible for framing technical guidelines to guide the states for implementation of health programme strategies.

In disaster settings, the Emergency Medical Response (EMR) division of DGHS is the focal point for the Emergency Support Function (ESF) plan. It includes identification of nodal officers for coordination, crisis management committee and quick response teams at headquarters and field level. The decision making body is the Crisis Management Group under the Secretary, Health and Family Welfare.

7.5.2 Absence of Command and Control Centre

We noted that MoH&FW which supports other Ministries for medical response for other disasters does not have a 'Command and Control Centre' for effective coordination among various stakeholders for medical response during disasters. The report of the Working Group on Disease Burden for the Twelfth Five Year Plan had also recommended (July 2011) establishment of such Centre. However, MoH&FW in November 2012 stated that a control room in DGHS with basic communication equipment was activated as and when required during response to disasters. The fact remains that although MoH&FW opted for ad-hoc arrangements, there was no permanent Command and Control Centre for coordinating medical response during disasters.

7.5.3 CBRN facility

NDMA guidelines while recognising the lack of medical facilities for Chemical, Biological, Radiological and Nuclear disasters, emphasised the need for specialised facilities for protection, detection, decontamination, antidote administration along with usual care required for other injuries in case of CBRN emergencies. The guidelines also mentioned that medical facilities for CBRN disasters were lacking in the country.

Based on a prototype CBRN medical centre model by DRDE[11], DGHS initiated the process for setting up this facility in Delhi in September 2009. MoH&FW provided

[11] Defence Research Development Establishment

in-principle approval in March 2012 to carry out the pre project activities but no agreement was signed (July 2012).

MoH&FW cited (November 2012) lack of expertise in civilian sector within the country for establishing such a facility as reason for delay.

7.5.4 Mobile hospitals

Hospitals are also prone to seismic hazards. Thus, alternative modalities must be in place for a prompt and effective disaster response. One such modality is a Mobile Hospital[12].

EMR division noticed that one of the impediments to quick medical responses during the disasters witnessed by country was non-availability of dedicated medical facilities near the disaster site due to damage to regular health facilities. The mobile hospital provided at the disaster site by the international agencies during Gujarat earthquake proved vital in saving many lives.

A High Powered Committee (HPC), set up in August 1999 on global best practices for disaster management, in its report submitted to MHA, recommended setting up of five to six mobile hospital units. The report was accepted by MHA. The proposal for setting up of one mobile hospital by MoH&FW at RML Hospital, New Delhi was approved in 2003. NDMA in its guidelines have also recommended procurement of adequate number of mobile hospitals.

[12] A mobile hospital is a prefabricated, self contained; container based hospital which can be deployed by road, rail or air. This can be rapidly deployed to provide medical care to disaster victims.

We found that MoH&FW had not been successful in procuring any mobile hospital during last nine years. On three occasions bidders failed to comply with the terms and conditions of technical and commercial requirements of bid documents. However, the process of procurement was underway since 2010.

7.5.5 Non setting up of three mobile hospitals by MHA

The Committee of Secretaries approved MHA's proposal for building specialised capabilities for rapid intervention in case of disaster in February 2005. This proposal also included setting up of three mobile hospitals at a cost of ₹ 57.00 crore (non-recurring) and ₹ 3.13 crore (recurring). Three of these fully containerised mobile hospitals were so envisaged that these could be flown to the site of disaster, quickly. As per the cabinet note, one hospital was to be attached to National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, one with CRPF Hospital, Guwahati and third was to be decided in consultation with Ministry of Health and Family Welfare (MoH&FW).

Subsequent events are summarised below:

April 2006	MHA decided that the modalities for procurement of these hospitals would be decided after the finalization of specification by MOH&FW.
June 2008	After more than two years, Secretary level talks were held between MHA and MoH&FW on finalization of specifications.
December 2010	MoH&FW intimated that the finalization of specifications would be completed by the end of January 2011.

July 2011	MHA sought the status of the proposal from MoH&FW.

We noted that even seven years since approval of the proposal, the hospitals had not been in place as MHA depended for its proposal on the MoH&FW. The specifications could not be finalised till August 2012.

MHA stated (December 2012) that setting up of mobile hospitals was directly linked to the finalization of procurement of a mobile hospital by MoH&FW as they had the expertise in the area. However, it would be able to setup the mobile hospitals only after MoH&FW finalises the procurement of hospital for itself.

We noted that both MHA and MoH&FW were involved in procurement of mobile hospitals with the latter being responsible for providing technical specifications to MHA. Due to delay in procurement of mobile hospitals, the country faced critical gaps in the medical preparedness for disasters. Thus, the procurement process needs to be streamlined with clear responsibilities.

7.5.6 Trauma life support training

During the Eleventh Five Year Plan, a scheme for National Trauma Care Programme was implemented. The aim of the programme was to have trauma centres and pre-hospital care centres along the highways passing through some of the most vulnerable disaster prone districts. An assistance of ₹ 281 crore was provided under the programme during Eleventh Plan.

Training of physicians to serve effectively in emergency rooms is a pre-requisite for management of trauma cases brought to hospital emergency departments. However, there was no structured and accredited course for trauma life support in the country till 2009.

JPN Trauma Centre at AIIMS was provided financial assistance by MoH&FW to begin Advance Trauma Life Support (ATLS)[13] training in the context of Commonwealth Games 2010. MoH&FW in November 2011 identified that there was a need to train 65000 doctors working in government hospitals in trauma support. Audit noticed that ATLS course were conducted in JPN Trauma Centre at AIIMS and RML hospital under agreement with American Association of Surgeons. Under the current arrangement there was about 100 US $ outflow per candidate for training material cost [14] to American College of Surgeons.

MoH&FW stated (September/November 2012) that the response for disaster gaps which existed in the health system was known and remedial measures were being instituted as there was requirement to train substantial number of doctors for emergency care in the country.

7.5.7 Medical preparedness in states

7.5.7.1 Emergency Casualty Management Plan

As per NDMA guidelines, an Emergency Casualty Management Plan aimed to

[13] ATLS is a training course introduced by American Association of Surgeons which provides training in managing airway, breathing and circulation to save lives in emergency department trauma rooms.
[14] Study material being the proprietary item

address post disaster disease surveillance, networking with hospitals, referral institutions and facilities such as availability of ambulances and blood banks. In the test checked states we noted the following:

- In the test checked districts of West Bengal, the Emergency Causality Management Plans were not prepared and procedures for treatment of casualties by private hospitals during disasters had not been laid down.
- The Crisis Management Plan of Uttarakhand had not been approved by the State Authority. No appropriate procedures had been laid down for treatment of casualties by private hospitals during disasters.
- In ANI, SOPs of Directorate of Health Services (DHS) outlining the contingency plan for management of mass casualties arising out of disasters were yet to be approved. In May 2012, DHS issued instructions to all the hospitals to prepare the SOPs in terms of manpower and logistics available locally and to keep the logistics indicated in the SOPs ready for any emergency situation. Only two institutions submitted their revised SOPs to the DHS while the SOPs were yet to be prepared by the other 18 hospitals.
- In the test checked Sindhudurg district of Maharashtra, the Emergency Casualty Management Plan had not been drawn up.
- In the test checked Jalore district of Rajasthan no procedure had been laid down for treatment in these hospitals in case of casualties during disasters.

7.5.7.2 Training for medical preparedness

- In the test checked Sindhudurg district of Maharashtra, training in paramedics, capacity building, trauma, etc. was not organised since 2009-10.
- In Uttarakhand, no training programme was organised in the state for trauma life support.
- In Darjeeling, Burdwan and Birbhum districts of West Bengal, we noted that development and training of medical teams and paramedics, capacity building, trauma and psycho-social care, mass casualty management, etc, had not been addressed.
- In ANI, during 2007-08 to 2011-12, only three doctors were trained in management of mass casualty. No training programmes on paramedics, capacity building and trauma, etc., at UT or district level were conducted.

Recommendations

- ***National Disaster Response Force should make concerted efforts to fill all the vacant positions including specialist positions. DG, NDRF should be given better control over transfers and deployment of the NDRF personnel.***
- ***The standard infrastructure for the NDRF battalions should be created at the earliest.***

- *SOPs for deployment of NDRF should be formulated and circulated to all stakeholders. Deployment of NDRF for small or localised disasters needs to be discouraged.*
- *States should be encouraged to raise their State Disaster Response Forces. SDRF personnel should also be properly trained and equipped.*
- *There should be a clear policy for the functioning of RRCs so that they can be effectively utilised for disaster response.*
- *MHA should ensure that upgradation work of 'National Civil Defence College' and 'National Fire Service College' is completed at the earliest.*
- *MHA should ensure completion of scheme for up-gradation of Fire and Emergency Services so that benefits of modern technology in fire fighting and rescue capabilities are extended to stakeholders.*
- *Capacity and infrastructure at both Central and state level should be strengthened for medical response.*