

REPORT

State Level Mega Mock Exercise on Earthquake Disaster held on 16th March, 2018.

A mega mock exercise on earthquake covering simultaneously of the District Daman, Diu, DNH and Gujarat Districts of jointly organized by the DDMA's of Daman and Diu under the supervision of the National Disaster Management Authority (NDMA), Government of India on 16th March, 2018. The purpose of this exercise was to measure and validate performance of following components and their associated critical tasks:-

- Incident Response System (IRS)
- Public and institutional awareness & preparedness
- Response Plans (of DDMPs/SDMP/ Departmental DMPs) at respective level
- Knowledge about ESFs and institutionalization thereof in the Departments/Districts.
- Identify the gaps in the existing Resources, Manpower, Communications etc
- Functioning of EOCs
- IAG/GO-NGO Coordination
- Response plan of district hospitals, etc.

Report on Mock Drill on Earthquake in Daman District.

The District Administration was to organize the rescue and relief response in the field and the State authorities were to monitor the situation and step in if required. 06 Observers from Coast Guard/NDRF/senior officers of UT administration were deputed at the state level and District level at various locations i.e. DEOC, staging Area, Incident Sites and in hospital.

01 Section of NDRF (40 Personnel) Company were deployed in the Daman by NDRF for Mega Mock Exercise at Daman District.

The Exercise involved:

- SAR – collapsed/damaged structures.
- Maintenance of law and order.
- Transportation of victims to hospitals.
- Response of fire tenders to douse fire.
- Setting up of relief camps.
- Setting up of temporary hospitals.
- Air-lifting of victims.

Comprehensive preparation of this exercise was done through Media Publicity and by the Conducting of Orientation & Coordination Conference, Sensitization workshop on IRS and Table Top Exercise.

At State level, an Emergency Operation Centre (EOC) was set up in Secretariat which was equipped with communication system like Wireless system, fixed line phones and WLL phones, Computers and Laptop. The different sections of the Incident Response System were established such as Planning Section, Operations Section & Logistics Section. The copies of

State Disaster Management Plan were also placed in the EOC & shared with all the Section Chief. 06 Observer (03 Officer of UT Administration & 03 Coast Guard officers) were Deputed at the various incident sites , Staging area and at Marwad district Hospital.

The Mock Exercise was conducted at 12 locations in the Daman District on 16th March, 2018 from 09:37 AM onwards after the hypothetical earthquake warning was generated by IMD and Earth quake shaking signal was given by the PCR vans at the incidence Sites and Hospital. 5 Sites were identified as per script of Incidence and 7 new locations were given as injector during Mock Drill Exercise in Daman District.

The State Emergency Operations Center (SEOC) was activated immediately and State Incident Response Team members were informed about the earthquake. Simultaneously, the District EOC were activated and all the Section Chiefs, staging area manager, Incident Response Team were informed by the DEOC through Landline phone And WireLess VHF sets.

All the concern Key Officers –RO, IC, Operation section chief, Logistic Section Chief, nodal officer Air Operation and other supporting staff were reached at the DEOC and started the work assigned as per IRS Plan.

IC collected the information from field and incidence sites through various sources and accordingly Planning section made the Plan as per resources available and identified by the Logistic Section. operation work were started accordingly by the various task forces, NDRF, PWD, medical team, transport and police under the supervision of OSC and IC.

the report of the damage and loss were sought by the SEOC, Daman. report of Losses and damage collected by The RO and Incident Commander from The Police Mobile Teams, Fire Team, IRTs and other Field offices and Community were shared with SEOC, NDMA, MHA, NIDM and other higher authorities.

Once the DEOC were activated the DC / RO & District IRT established the respective Command posts, Staging area, Relief Camps, etc. Resources like Ambulances, Mini trucks, Mini buses were deployed at the staging area per requirement and availability of resources in the district for the response.

Teams of Task forces, NDRF, PWD, Ambulance , JCBs, Transport Vehicles, The local police, fire services, home guards & available paramilitary forces and other authorities Rush to the incidence sites from Staging Area as per directions of DEOC. Teams started search and rescue & Evacuation operations.

The Incident: The earthquake struck at 09:37 AM and first report to this effect came in to DEOC at 09.41 AM from DEOC Chamber through wireless. The final report of loss as received from the field was NIL Deaths, 85 Injuries, 147 persons trapped, 232 Rescued, 35 Hospitalized, 10 buildings damaged badly, 5 roads damaged, 2 Schools damaged, 2 major fires were reported, 2 bridges cracked and no livestock were reported dead (the Detailed Matrix of the loss/damage reported is in the Annexures). The Mock exercise was called off at 1:00 PM. The Responsible Officer at State Level , NDMA member and Consultant , RO DEOC and Incident Commander briefed the Press about the situation of earthquake mock exercise in the Secretariat at 4:00 pm.

De-Briefing Session – Post Exercise

A debriefing session was held through video conferencing with all the 2 Districts & State IRT members at 2pm under the chairmanship of the Responsible Officer (Advisor to Administrator) and in presence of NDMA Member and Consultant NDMA where the following points were discussed:

Suggestions & Recommendations for Pre- Mock Exercise

- a. It was agreed by all that the time gap between Coordination conference and mock drill shall be at least 15 days.
- b. There is a requirement for alternative communication systems to be in place like HAM Radio network which needs to be expanded in the UT since the DEOC Wireless VHF And police wireless systems are the only source of communication is left with the state and districts. If possible, there should be an exclusive network of communication during disaster, and all responders should be properly networked / linked with it.
- c. State level & District level mapping of resources should be done beforehand and be a part of the State Disaster Management Plan/District Disaster Management Plans with regular updation.
- d. A need of up gradation of the State Emergency Operations Center (SEOC) with state of art equipments and appropriate space for IRTs during future emergencies/mock exercises.
- e. Community sensitization about disaster is crucial. Masses should be educated on awareness on disaster and mitigation and response efforts through inclusion in school curriculum, publicity drives, mass media campaigns, etc. These campaigns should include students, youth, families, elected representatives, communities etc.
- f. The regular trainings of the IRS shall be conducted extensively so that the roles of all officers in the Incident Command should be clear to them and they should be briefed beforehand Advisor to Administrator.
- g. Advisor to Administrator and District magistrates (RO) has advocated that such Mock drills should also be conducted in evenings, nighttime and on holidays.
- h. Places for relief camps, storing of food/medical supplies/equipments, etc. and for cremation should be identified beforehand and known to all concerned IRT members.
- i. Contact numbers of specialized agencies who can conduct firefighting operation in places having extremely high inflammable materials like petrol pumps, chemical factories, etc. should be available beforehand and this should be included in IRS Plan of District and Shall be placed in DEOCs.
- j. Information on location of relief camps and details like their capacity, routes, materials available etc. should be available with the concerned officers and all stakeholders beforehand.
- k. Non-government organizations and volunteers should be involved in all aspects like community sensitization and should also be involved in planning for disaster management and trained in rescue and relief.
- l. It was suggested that all mock drills and other joint exercises should be conducted along with local/nearby available Army authorities and Central Police Forces to ensure

smooth functioning during actual disaster. The contact details of the nodal officers of these units shall be available and updated regularly in the EOCs.

- m. The Disaster Management Plans prepared at different level in the state should be two way, each departmental DM plan shall have that department's role as ESF in the State/District level be clearly mentioned. Interdepartmental coordination shall also be ensured in the DM Plans.
- n. Air operations shall be well planned with availability of the Helipads & Air Strips in the state with the geo coordinates as well as the dimensions so that the inflow of the air support can be effectively managed.
- o. Resource available in district should be mapped and contact numbers of the provider should be in DDMP, Resource required from other agencies i.e. Army / Air Force / Coast Guard / NGOs/ Nearby District should be part of DDMP and should be shared with the concern organisation for better coordination with DDMA & the other agencies.
 - IRS plan for District should be shared with all stakeholders and all IRT & DEOC & Department should be well informed with their Roles & Responsibilities.
- p. All the member of DEOC/SEOC and IRT and other Key Officer should be trained to the alternate communication device (VHF/SI/FM Radio etc.) during disaster.

Findings during the exercise

- a. Effective alternate communication system to be setup in the UT for emergency communication as Mobile Network and Landline communication may hampered many times which can be a challenge at the time of the response (DEOCs, Daman & Diu).
- b. Gap identified in Disaster Management Cell -VHF, Base Station Network Should be bridged soon, So effective wireless communication can be established during Disaster in entire Daman district.
- c. Frequent mock drills (quarterly) shall be conducted with different scenarios specially Earthquake, Cyclone, Flood, Major Fires etc.
- d. There should be an UTDRN & DDRN of Daman & Diu District for proper mapping and availability of resources at UT level and District levels.
- e. IRS training to the IRT members shall be a regular feature in the trainings of the District and. Section wise trainings shall also be prioritized and strengthening of IRTs. (ROs/DM)
- f. Traffic & Crowd Management near the staging areas/relief camps. (District Magistrate)
- g. It should be ensured that NDRF& other response forces is provided unobstructed access to the site& the air fields. Local guides should be also be provided with the teams coming in from outside. (District Magistrate.)
- h. Inventory of the resources available in the districts shall be mapped and updated regularly to cut the mobilization and response time. (District Magistrate)
- i. Water and Sanitation component shall be addressed at the staging areas, incidence command post, Medical Post and relief camps. (District Magistrate)

- j. EOCs in the districts need to be strengthened and converted into Emergency Resource Centers. (District Magistrate)
- k. Medical facilities and resources in the state shall be strengthened so that the post disaster medical response can be more effective. There is lot of shortage of the medical staff in the districts which need to be addressed. (District Magistrate)
- l. Mobilization and coordination with the Air Ambulances service provider for medical evacuation. (District Magistrate)
- m. Planning needs to be done regarding movement in narrow streets for response, local volunteers to be associated. (District Magistrate)
- n. Involvement of the NGOs, CBOs & Volunteers in the exercise. (District Magistrate)
- o. Community Participation and regular drill at Micro level upto Panchayat level. (District Magistrate)
- p. Criticality and Vitality of the bridges in the district should be addressed regularly and included in the DDMPs. Civil and mechanical wings Of PWD should be strengthen for better Disaster resilience structure and Response. (District Magistrate)
- q. Satellite phones are required to be placed in the SEOCs & DEOCs and to be functional for the communication other than HAM Radio, Wireless and V-SAT.
- r. It was suggested that during Disaster management personnel and agencies should follow safety first principle during search, Rescue and Evacuation operations.
- s. By NDMA consultant it was suggested that there should be a effective information dissemination and Public addressing system in place during Disaster / crisis.
- t. It was suggested there should be effective media management

Suggestions by the various Stakeholders:-

- There is an urgent need of pre-positioning of stores/commodities at District/Sub division level.
- It was suggested by The Consultant NDMA that, There should be a 24*7 Operational well equipped DEOC in Both The Districts, Daman and Diu.
- The NDMA representative also suggested that there is an urgent need of portable equipments for the remote areas. District administration may prepare the list of such equipments and provide it to the Village Panchayat level, ULBs, Fishries Department and community as well. SDMA will plan to provide the V-SAT to the districts especially in the remote vulnerable areas.
- There should be proper training of District/ Sub division level officers on various aspects of Incident Response System.
- There is an urgent need of training of first responders at Community level and create a pool of such trained personnel's.
- A suggestion from NDMA was placed that the State shall establish its State level Disaster Response Force (SDRF), which can be trained by NDRF training centers for the collapsed structure SAR for the earthquake hazard.
- SDMA/DDMAs shall develop more and disseminate the Do's & Don'ts at the micro level for public awareness. IEC activities to be enhanced to reach at the community level.

- Necessary steps would be taken up for effective management from the Flood during insuing monsoon.
- Operation Section Chief, DIG, Daman & Diu suggested that critical infrastructure like Hospital, bridges, SEOC building, DEOC building, Schools, other Government Building should be Earthquake Resistance. Necessary Retrofitting should be done in existing Infrastructure and buildings. It was suggested by the DIG that IEC activities about Do's and Don'ts during the disaster should be carried out in the Residential Societies & Industrial Area and in School & communities. **(Action – DEOCs)**
- Chapter regarding Disaster management should be a part of School and College curriculum.

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The meeting was ended with the remarks of the Chief Secretary (RO) where he complimented the SDMA & DDMA's for participating & the efforts put in the mega mock exercise by all the stakeholders. He further said that these mock exercises are the investment made for the effective and timely response to the future disasters. He thanked NDMA and Maj. Gen (Retd.) V. K. Naik for their support.

Media Debriefing Session

After the debriefing session a media debriefing session was held at the conference Hall, Secretariat, Moti Daman with representatives of the print and electronic media under the chairmanship of the Relief commissioner/District Magistrate, Daman. He briefed about the mock exercise conducted and the pre exercise events that were conducted to make the exercise more successful with the help of NDMA.

The following key points were shared with the media:

- In order to make the exercise successful, the state government conducted comprehensive awareness campaign through Media (Print and Electronic) and distributed around 80000 pamphlets on Earthquake disaster awareness for general public.
- NDRF and Indian CoastGuard representatives also took part actively and issues of coordination during disaster response operations were streamlined.
- NDRF teams participated in mock exercise along with integral resources of districts such as police, medical, fire services, PWD, Transport, Home Guards etc.
- The support and guidance from Lt. Gen N.C. Marwah (Retd) Member, National Disaster Management Authority and Maj Gen V.K. Naik (Retd), Senior Consultant, NDMA was highly helpful.

State Government steps and efforts to prepare the State for Earthquake disaster:-

The state has proactively taken following actions towards making the state resilient to Earthquake disasters:-

- State and Districts Emergency Operation Centre's are operating 24X7 to deal with the emergencies.

- UT Disaster Management Plan was prepared in 2012 and again revised in 2017.
- District Disasters Management Plans were prepared in 2012 and again all revised in 2017.
- We are also conducting Training and Capacity Building Programmes for Engineers, Architects, Town & Country Planners and Masons on Safe Construction Practices and Structural Safety Under The NIDM.
- Departmental Disaster Management plans have been prepared by Medical & Health Department, UTDRF, Crisis Management plan by Police.
- We are also conducting Mock Exercises on Earthquake Disasters from time to time, to check efficacy of State, District and Departmental DM plans and response of various districts and stakeholder departments.
- The National School Safety Program was also implemented in the UT of Daman & Diu with the support of National Disaster Management Authority. The programme was aimed to promote the culture of safety among children in all the schools.
- We are also planning the Comprehensive Programme on Hospital Safety with the vision that all major hospitals in UT of Daman and Diu are structurally and functionally safer from disasters, so that the risks to human life and infrastructure are minimized.
- The UT will prepared Hazard, Vulnerability and Risk Assessment (HVRA) Atlas.
- In insuing Mansoon DEOC will be functional 24*7 and will be well equipped & Trained staff.
- A effective Mechanism/ system will be set up for communication And coordination between various agencies, public/community representative and with Community.
- A mock Exercise for Flood/Cyclone will be conducted in Daman &Diu for better Preparedness.

Orientation & Co-ordination Conference on 6/03/2018



Table Top Exercise on 15/03/2018



Mock Exercise on 16/03/2018



Glimpses of Mock Exercise



Media De-Briefing Chaired by District Magistrate, Daman.



The Media Clippings

SAKSHI INDIA TIMES, Dam. 11/08/2018

महोदय: इंदिरा इरूम

Daman - 1 Div

राष्ट्रीय आपदा प्रबंधन द्वारा संघप्रदेशों में मॉकड्रिल



राष्ट्रीय आपदा प्रबंधन द्वारा संघप्रदेशों में मॉकड्रिल

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दौड़ में भी हुआ मॉकड्रिल

दौड़ में भी हुआ मॉकड्रिल

SAKSHI INDIA TIMES, Dam. 11/08/2018

सर्वेसर् इंदिरा इरूम

आपदा प्रबंधन - 1 Div

सर्वेसर् इंदिरा इरूम

आपदा प्रबंधन की तैयारियों को लेकर मीटिंग



आपदा प्रबंधन की तैयारियों को लेकर मीटिंग

Asli Azadi Daily, Daman, 07/08/2018

असली आजादी (दैनिक)

एनडीएमए ने दमण में बैठककर आपदाओं से निपटने की पूर्व तैयारियों पर किया मंथन



एनडीएमए ने दमण में बैठककर आपदाओं से निपटने की पूर्व तैयारियों पर किया मंथन

VARTMAN PRAVAH, Daman, 07/08/2018

वर्तमान प्रवाह (दैनिक)

सकल मॉकड्रिल योजना

दमण में भूकंप, आग और राहुव गांधी सेतु में पडोली तिराड बाहनी स्थिति सामे लडवा करायेली कवायत



सकल मॉकड्रिल योजना