

SEPTEMBER 2019



# AAPDA SAMVAAD

## Battling Floods 2019





**India-UK workshop on Science for DRM**

The Office of the Principal Scientific Advisor, Govt. of India, along with UK's GO-Science conducted a workshop on Science for Disaster and Emergency Risk Management on August 29-30, 2019 in New Delhi. The event was inaugurated by Dr. P. K. Mishra, Principal Secretary to the Prime Minister.

The workshop aimed to share the Indian and UK advise mechanisms and practices for using science and technology in the management of emergencies and disasters.

Dr. P. K. Mishra stressed that it is of vital importance that India and UK work together to optimize the application of scientific and technological capabilities in order to understand, reduce and manage disaster and emergency risks which have grave implications on life and economy of nations.

Prof. K. Vijay Raghavan, Principal Scientific Adviser to GoI, said that interactions at the workshop aim to facilitate adoption of best practices by identifying new opportunities and building upon the existing Indo-UK collaborations on science and technology.

**Zambian Delegation visits NDMA**

NDMA officials on August 22, 2019 met a five-member delegation from the Republic of Zambia. The visit was a part of their State visit to India from August 20-22, 2019.



To set the tone of the interaction, NDMA made a presentation on the global trends in disasters, the institutional mechanism for DRR in India and the functioning of the Authority. The presentation also touched upon the specific impact of climate change leading to an increase in heat-related mortality in India and the various preparedness measures that are being implemented towards minimising the adverse effects of heat wave in the country. This was followed by a detailed discussion on relevant issues.

Knowledge exchange and sharing of best practices is an important tool for reducing risks and empowering vulnerable communities. Discussions at the meeting would mutually benefit both the countries in their efforts towards Disaster Risk Reduction.

**MRDS training held**

The National Disaster Management Authority (NDMA) has launched a pilot project to train police and National Disaster Response Force (NDRF) personnel on managing radiological emergencies at public places. The project aims to extensively train select officers who will then prepare other personnel in their respective States to handle such emergencies. Under this project, radiation instruments are being installed in the police departments of 56 select cities.

The eighth batch of police personnel was trained at NDRF 6th Battallion in Vadodara, Gujarat from



August 19-31, 2019 by experts from the Bhabha Atomic Research Centre (BARC).

**Meeting on museums and cultural heritage**

NDMA conducted a meeting on August 6, 2019, to take stock of the progress made on Disaster Risk Management (DRM) issues concerning museums and cultural heritage sites.

With an aim to preserve our cultural heritage for transmitting the knowledge and skills to the next generation, regular workshops and training programmes are being conducted across the country to create a national base of trained manpower in the field of conservation of manuscripts. This was informed by the representative from National Mission for Manuscripts.

NDMA suggested that given the vast quantity of manuscripts available in the country, a pool of master trainers may be created for manuscripts

security and conservation by organizing training programmes. The Master trainers could then train all the stakeholders for security and conservation of manuscripts. There should also be a plan for mapping all manuscripts in the country.

National Trust for Art and Cultural Heritage (INTACH) has been given the work for preparation of Disaster Management Plan (DMP) for museums, said the representative from the National Museum. A template has been evolved for the preparation of the same. The work is expected to be completed by October 2019.

**Meeting on telecom infra**

The impacts of the recent cyclone Fani brought into focus the need for disaster and climate resilient telecommunications infrastructure systems in India, particularly Odisha.

NDMA organised a meeting August 16, 2019, to bring together the stakeholders involved in developing policy, and in building and operating the telecommunications infrastructure in Odisha, to discuss and devise a roadmap towards building disaster and climate resilient telecommunication infrastructure in Odisha, and by extension in all high-risk areas of India.

Resilient infrastructure is key to reducing losses from a disaster.





# Log in to TNSMART for real-time flood alerts

**T**N SMART (Tamil Nadu System for Multi-Hazard Potential Impact Assessment and Emergency Response Tracking), a web-based system to strengthen preparedness, response, and mitigation measures for multiple hazards such as Flood, Cyclone and Tsunami, Lightning, etc, was launched by Tamil Nadu on October 26, 2018.

The system has been developed jointly by the Department of Revenue Administration and Disaster Management, Government of Tamil Nadu and Tamil Nadu Disaster Management Authority with support from RIMES Regional Integrated Multi-hazard Early Warning System (RIMES), Thailand, in a record time of one year.

One of the significant aspects of the system is the fact that it is aligned with priority areas set forth in Global Frameworks (the Sendai Framework, World Meteorological Organization's Global Framework for Climate Services and Sustainable Development Goals) as well as Tamil Nadu State Disaster Management Perspective Plan 2018-2030.

TN-SMART also has a mobile application which can give access to observed rainfall data for all available rainfall stations, weather forecast and likely flooding in identified vulnerable areas. This application sends alerts to field-level functionaries and tracks the action taken by them on the same. Citizens too can send distress messages to the system, which are then forwarded to concerned

**Risk communication**

**Alerts**

- TNSMART Flood Alerts
- CFWIS Flood Alerts
- CWC Flood Alerts
- IMD heavy rainfall
- IMD Cyclone Bulletin
- IMD Hatched warning
- INCOIS Tsunami Bulletin

**Modes of communication**

- TNSMART DWRAS (Disaster Warning Assessment System)
- Email
- SMS
- Mobile App
- Media (Print, Electronic, Social media)

**Unique Alarm system in TNSMART App**

Alert pushed by TNSMART system

## Major TN-SMART Modules



officers for action. This mobile application has a unique alarm system that can send an alarm, even if mobiles are in silent mode. The alarm stops ringing only after the alert has been viewed.

A disaggregated database of such calls (location of user, type of emergency, etc.), legacy data on vulnerable areas, vulnerable communities, disaster damage and critical infrastructure such as hospitals, relief centres, etc. aids policy making.

TN-SMART also uses data analytics to arrive at different thresholds, which, in turn, are used for arriving at specific advisories.

The system thus caters to policy makers,

operational users as well as the communities. It helps policy makers prioritise Disaster Risk Reduction, operational users understand risk patterns, identify risk locations, vulnerable populations and plan deployment of response teams and materials. The system empowers communities by helping them avoid risk by preemptive evacuation thus improving resilience.

It provides for an annual performance audit based on which improvements will be made in the system so that constant improvements are made. TN-SMART is a 360 degree solution for tracking, monitoring, evaluating and clocking progress on all aspects of disaster risk reduction.



# Battling Floods 2019

**T**he Southwest monsoon is known to bring floods in the basins of the Himalayan rivers. However, this year, it brought floods in more than 10 States across the country - from Kerala in the south to Himachal Pradesh in the north and Tripura in the East to Gujarat in the West - even submerging areas that were not considered flood-prone.

As the monsoon season began to advance, a prompt Central government wasted no time in extending all possible help to the flood-affected States. Preparedness measures were put in place, National Disaster Response Force teams were pre-positioned at vulnerable locations based on the forecast of early warning agencies and the situation was being closely monitored at the highest level. In fact, Union Home Minister, Shri Amit Shah, chaired high-level meetings to review the flood situation and the preparedness of various stakeholders on July 13

and August 19, 2019. The Minister also undertook an aerial survey of flood affected areas of Belgavi district of Karnataka and Sangli & Kolhapur of Maharashtra on August 11, 2019.

Meanwhile, the National Crisis Management Committee held regular meetings with all stakeholders to take stock of the situation, preparedness, rescue and relief operations.

The Armed Forces, the NDRF, Central Armed Police Forces (CAPFs), Coast Guard, and stakeholder Ministries and Departments of the Central Government worked hand-in-hand to smoothly conduct the rescue and relief operations - evacuating people from low-lying areas, bringing them to relief camps, distributing essentials such as food packets, clothes, bed sheets, blankets, candles, matchboxes, mosquito repellents, chlorine tablets, essential medicines, setting up medical camps, etc.

The Ministry of Home Affairs constituted Inter-Ministerial Central Teams (IMCTs) to visit affected States for assessing the damages and relief operations carried out by the States, and making final recommendations for allocation of additional funds.

Some regions are still reeling under floods. State machinery is doing its job. In time, this shall pass. Recovery and reconstruction will take years, setting us back on our development gains. All of us have a role to play in preventing a re-occurrence. We can do our bit by not building on floodplains, not littering waste, plastic bags and bottles in drains, and preventing others from doing so too. Following a simple set of Do's and Don'ts will go a long way in making us flood-resilient. Be Smart. Be Prepared.



# Shri Mangesh Ghildiyal, DM, Rudraprayag, on District Disaster Response Force



**R**udraprayag in Uttarakhand falls in the high risk seismic zone. Given its geographical and climatic conditions, the district also faces the risk of landslides, cloud bursts and Glacial Lake Outburst Floods. The district boasts of several tourist attractions, including the Kedarnath Temple, and draws pilgrims from the world over. The district formed a District Disaster Response Force in March 2018 to ensure swift and efficient disaster response. Aapda Samvaad spoke with Shri Mangesh Ghildiyal, District Magistrate, Rudraprayag, who was instrumental in setting up this Force.

## **Q. Why was this Force created?**

A. Rudraprayag is prone to multiple hazards like earthquakes, landslides, forest fires and cloud bursts. In 2013, a glacial lake outburst in Kedarnath resulted

in a significant loss of lives and property. The district is also home to various touristic and religious places which results in a large influx of tourists throughout the year. Kedarnath alone attracted more than 7 lakh pilgrims in 2018. Disaster Management is a major challenge for us and to do it well, we established a dedicated disaster response force in March last year. It is the first of its kind in the country.

The Force is meant to provide immediate and effective response in case of any emergency. Another objective is to manage a large seasonal influx of tourists, especially the elderly and persons with disabilities, during the Shri Kedarnath Yatra.

At the time of the 2013 Kedarnath disaster, the need for trained manpower and community awareness were strongly felt. Disaster Management was functioning with the help of police and health

department personnel. These people had to be trained over and over again as they not only have to focus on their primary duties, they were also transferred regularly. To deal with such shortage effectively and ensure the availability of a dedicated force at the disposal of the district administration at all times, the District Disaster Response Force was created.

**Q. How strong is the Force? How were its personnel chosen?**

A. Presently, there are a total of 26 persons in the DDRF. They were shortlisted from the PranteeyRakshak Dal (PRD), a mechanism developed by the Department of Youth Welfare by which they select local volunteers who render their services as and when required and are paid accordingly. Department of Youth Welfare has a separate budget for this from the annual plan of the District and DDRF team members are given a fixed monthly remuneration from this budget. Other allied expenses such as uniform, shoes and equipment are covered from the capacity building budget of Disaster Management. These personnel are given regular training too.

In fact, this model can easily be replicated in other districts of the State.

**Q. On which skills have the DDRF personnel been trained?**

A. To start with, the DDRF team went through a month-long rigorous field training on Search and Rescue, First Aid, Crowd Management and Emergency Response.

The team later underwent a 15-day Search and Rescue course at the Nehru Institute of Mountaineering (NIM), Uttarkashi, one of the finest mountaineering institutes in Asia. This training the DDRF team to perform Search & Rescue operations in the Himalayas, particularly with reference to rescue techniques on rock, snow and ice, First Aid, Mountain Navigation, Radio Telephony, Audio and Visual communication Signals and evacuation

methods. It also helped them improve their coordination skills with various other stakeholder organizations.

Advance courses in Mountaineering and Search & rescue from NIM, Uttarkashi are in the pipeline for the DDRF team members for upgrading their skills.

**Q. How has been the community's response so far?**

A. The local community is very supportive of the initiative as they are the primary beneficiaries of the activities of the Force. The DDRF is deployed at remote and sensitive places of the district during the monsoon period and works as first responder to various events like road blockage, landslides, road accidents, etc. in the villages.

As soon as control room receives any such information, it is communicated to the nearest DDRF team which immediately moves to the affected place. While the agency responsible takes over the core work, the DDRF team manages the allied activities such as managing traffic and distributing the food and water to the stranded people in case of a road accident.

The team also helps clean the 16 km long Gaurikund-Kerdarnath trek route before the commencement of annual Shri Kedarnath Yatra. During the Yatra, they are stationed at various points to help the pilgrims.

**Q. Please share a few specific cases where this Force came to people's rescue?**

A. While the district has not seen any major disaster after the formation of this Force, the team has rescued many during various accidents and the monsoon period.

Very recently, the DDRF team brought back to safety more than a 100 tourists who were stranded at a village named Chopta, where roads were closed up to miles due to heavy snowfall.

The DDRF team also regularly organizes trainings and awareness programmes at schools and villages. More than 1700 such trainings have been given so far benefiting around 2,500 participants.



१५वां स्थापना दिवस  
**15th Formation Day**

राष्ट्रीय आपदा प्रबंधन प्राधिकरण  
**National Disaster Management Authority**



"अग्नि सुरक्षा"  
"Fire Safety"

२७ सितंबर, २०१९  
27 September, 2019

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