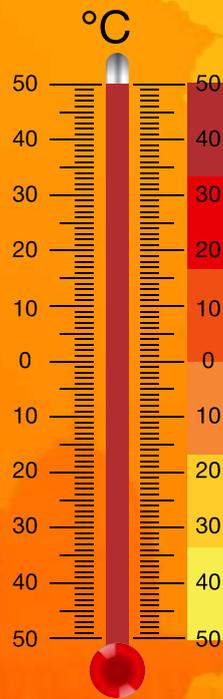




AAPDA SAMVAAD

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Training programme for CBRN emergencies



NDMA conducted a five-day basic CBRN training programme at the New Mangalore Port Trust in Mangaluru from February 11-15, 2019. The training programme was aimed at enhancing the preparedness of Seaport Emergency Handlers (SEHs) to respond to CBRN emergencies at the seaports.

This was the first in a series of such programmes that will be conducted at various seaports across the country to enable SEHs to respond suitably until the arrival of specialised response teams.

CBRN emergencies pertain to threats emanating from the use of Chemical, Biological, Radiological and Nuclear material.

The training programme was conducted in collaboration with the Indian Ports Association (IPA), Institute of Nuclear Medicine & Allied Sciences (INMAS) and National Disaster Response Force (NDRF). This training programme was to improve the CBRN safety at our seaports by enabling the SEHs to handle any CBRN emergency.

The programme consists of lectures as well as field training, including live demonstrations of detection and decontamination including use of Personal Protective Equipment (PPE). Besides equipping the SEHs to handle CBRN emergencies, the training programme also enabled the participants to provide medical first aid and initial psycho-social support.

Experts from stakeholder departments such as Bhabha Atomic Research Centre (BARC) and Defence Research and Development Organisation (DRDO) trained the participants.

Around 50 participants representing various agencies responsible for operation and maintenance of the seaport were trained on various aspects of CBRN emergencies. Another 150 working level staff were sensitized on the subject in a half-day module.

Training Programme on NDMS Pilot Project

NDMA conducted a two-day training programme on February 25-26, 2019 to familiarise and enable State/District personnel to handle the equipment related to National Disaster Management Services (NDMS). Middle-level officials with working experience in the State/District Emergency Operation Centres (SEOC/DEOC) were trained in using advanced technology such as Very Small Aperture Terminal (VSAT), voice calls, Internet, email, video, satellite phones and High Frequency Radios, among others.

NDMS is a pilot project for connecting the Control Rooms of the Ministry of Home Affairs (MHA), NDMA, headquarters of the National Disaster Response Force (NDRF), all the States and Union Territories as well as 81 hazard-prone districts. It aims to provide failsafe communication infrastructure and technical support for EOCs in the case of a disaster.



Lectures on IRS



NDMA organised a series of lectures on the Incident Response System (IRS) for Government officials in Goa, Maharashtra and Karnataka on January 9, 11 and 17, 2019 respectively.

IRS is an effective mechanism to systematically respond to an incident. By clearly attributing roles and responsibilities to each stakeholder, it reduces confusion and chaos while responding to a disaster.

The IRS clearly enumerates the immediate tasks that need to be performed once a disaster strikes. It identifies, designates and trains officers, from the State to the block level, to perform specific roles in case of a specific disaster. Each stakeholder is made aware of his role and would become active in case of a disaster. This deconstructs a very complex response mechanism resulting in a swift and streamlined response.

It is a participatory approach that can be successfully implemented irrespective of size, location, type and complexity of a disaster in India. It also helps NDMA in assessing and improving the preparedness of the States for dealing with disasters by monitoring and guiding them in achieving multi-agency coordination with a unified command and improving capacity building and response mechanisms.

Training programme on rapid assessment to resilient recovery

A four-day training programme on rapid assessment to resilient recovery was conducted by SAARC Disaster Management Centre (Interim Unit) in Gandhinagar, Gujarat from January 29, 2019. NDMA representative participated in the programme as a resource person.

Post-disaster recovery and reconstruction, following the building back better modality, is important for SAARC Member States in pursuing resilience to disasters. A quick and reliable post-disaster impact assessment is central to timely recovery and reconstruction.

The training programme helped participants to learn and improve their knowledge of bridging emergency response, recovery and reconstruction activities, and promote the use of smart tools and technologies for better recovery and reconstruction.



Representatives from all eight SAARC nations (South Asian Association for Regional Cooperation) participated in the training programme.

Lecture on Industrial Disaster Risks

NDMA conducted a session on 'Chemical Industrial Disaster Risks - Preventive Measures and Response' at GAIL in New Delhi on January 30, 2019. The session was chaired by Dr. D. N. Sharma, Member, NDMA.



IORA Meet on Disaster Risk Management



The Indian Ocean Region is sometimes called the “World's Hazard Belt” as eight out of ten disasters in the world occur here, making nearly one-third of the world's population vulnerable.

In 2018, Indonesia suffered tsunamis and earthquakes, Madagascar faced severe droughts, India saw floods and landslides besides seasonal cyclones in the Islands of the Indian Ocean, and many more calamities. The loss of lives as well as the damage to property and the natural environment is incalculable. More so as the Indian Ocean Rim is home to small island nation states and developing littoral countries with high population densities, which are hit much harder due to the lack of resources and assets to handle a calamity.

Moreover, the region is also witnessing an increasing link of disasters to climate change with increasing sea levels and rising water temperatures. Disaster Risk Management (DRM) is, therefore, one of the priority areas of the Indian Ocean Rim Association (IORA) countries. In fact, IORA's Action Plan (2017-2021) has specific goals to improve resilience in the region. Towards this, it encourages partnerships between governments and institutions to strengthen this priority area through joint training programmes, sharing of experiences

and best practices, capacity building and enhancing the technical capabilities within the region.

One such meeting of IORA Cluster Group on DRM was organised by the Ministry of External Affairs, Government of India, in collaboration with the NDMA, National Disaster Response Force (NDRF) and Ministry of Home Affairs on 5-6 February 2019 in New Delhi.

The two-day meeting featured interactive sessions with a focus on development of a draft Work Plan for DRM in IORA. It also deliberated on the need for establishing a DRM Core Group to take

forward the agreed objectives under the Work Plan.

Discussions on strengthening cooperation in disaster response interventions, including deployment of response teams and mobilization of relief material to affected countries, were held. Besides, information exchange, sharing of best practices, data and early warning technologies were also discussed.

A total of 36 delegates from eight Member States, including India, and the IORA Secretariat participated in this meeting. Senior officials of MHA, MEA, NDMA and NDRF were also present.

Discusses strengthening of cooperation in disaster response

36 delegates participate from 8 Member States

Goals of IORA Action Plan (2017-2021)

- Enhancing cooperation with other inter-governmental and multi-lateral organisations
- Sharing of information, expertise and best practices
- Implementing training and capacity building programmes
- Developing resilience through early warning systems and regional exercises

PREPARING FOR HEAT WAVE 2019



2,040 persons - that's the number of lives claimed by the heat wave in India in 2015. The number was higher than deaths caused by any other disaster. Cut to 2018 heat wave deaths - the number stands at just 25. That is a decline of more than 98 per cent in three years' time. It definitely is a success story.

How did it happen? Noticing this severity of killer heat waves, the National Disaster Management Authority formulated and circulated to the States the 'Guidelines for Preparation of Action Plan - Prevention and Management of Heat-Wave' in 2016. The Guidelines provided a framework for implementation, coordination and evaluation of activities undertaken by local authorities to reduce the adverse effects of extreme heat-wave. Effective implementation of the Guidelines by some of worst affected States brought down the number of heat wave-related deaths to 1,111 in 2016.

Heat wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the pre-monsoon summer season. The extreme temperatures and resultant atmospheric conditions adversely affect people living in regions reeling under heat wave conditions as they may cause dehydration, heat exhaustion, physiological stress and sometimes even death.

It told us we could even better this with a little advanced planning with all key stakeholders on board. As the heat wave onslaught in various parts of the country typically starts by the latter half of

March, NDMA organised a national workshop on heat wave risk reduction at Hyderabad in Telangana in February. This timely workshop helped heat-prone States in drawing up their plans for the year and we could bring down the number of deaths to 384.

In 2018, NDMA organised the second annual heat preparedness workshop in Vijayawada, Andhra Pradesh.

To further improve our heat wave preparedness towards achieving the 'zero mortality' target in 2019, NDMA organised a two-day national workshop on heat wave risk reduction on 27-28 February at Nagpur in collaboration with the Government of Maharashtra.

Besides sensitising the States to the need of

updating and implementing specific Heat Action Plans, this workshop also discussed new focus areas such as Climate Change Adaptation (CCA).

Climate change is driving temperatures higher as well as increasing the frequency and severity of heat waves. A recent report by the Intergovernmental Panel on Climate Change (IPCC) shows that in the Indian subcontinent, global warming impacts have come sooner and hit harder than predicted. Urging all stakeholders to integrate Climate Change Adaptation (CCA) into their heat

risk reduction planning, Lt. Gen. N. C. Marwah, Member, NDMA, said, “The manifestation of climate change is clearly evident in the last few years. There is a need to lay greater emphasis on mid-term and long-term measures that need to be adopted for Climate Change Adaptation.”

Some of the most vulnerable States, which have done a commendable job in mitigating the impact of heat waves, also shared their experiences and best practices to help other stakeholders to draw lessons. “Learning from each other is the best way to deal with any disaster,” said Dr. D. N. Sharma, Member, NDMA, who chaired the session on experience sharing and lessons learnt.

Over the two days, stakeholders discussed the road map for further reducing the adverse effects of heat wave in 2019 with advance planning and preparedness. The India Meteorological Department has indicated the probability of above-normal summer temperatures this year. As the temperatures will tend to rise, leading to stronger and longer heat waves, it will pay to be prepared.

Technical Sessions

- Climate change and Heat wave risk reduction
- Early warning, forecasting and Preparedness for heat wave
- Experience Sharing & lessons learnt for heat wave mitigation measures
- Capacity building & Enhancing effective response to Heat wave
- Inter agency coordination and effective governance

Tips for treatment of a person affected by sunstroke:

In a few weeks from now, the scorching sun will descend upon us with all its might. Despite all the precautions, people will be affected - dehydration, exhaustion, stress - a sunstroke. Here's how you can help:

- In order to bring down the temperature use wet cloth / pour water on victim's head.
- Give the person ORS (Oral Rehydration Solution) to drink or lemon sarbat/torani or whatever is useful to rehydrate the body.
- Take the person immediately to the nearest health centre.
- If consistently experiencing high body temperature, throbbing headache, dizziness, weakness, nausea or disorientation in the summer, call 108/ambulance.

Who Said What



“We need to innovate to come up with local solutions for local problems factoring in nuances of social environments. It's also time to further refine our Heat Action Plans and improve their implementation”

- **Lt. Gen. N. C. Marwah**, Member, NDMA

“Learning from each other is the best way to deal with any disaster. Sharing experiences on heat risk reduction will help us further improve our preparedness.”

- **Dr. D. N. Sharma**, Member, NDMA



“There is a need to put an appropriate monitoring mechanism in place at the national, State and district levels, and collect robust data. We must not only aim towards zero heat mortality and reduced illnesses, but also on heat wave risk reduction.”

- **Dr. V. Thiruppugazh**, Joint Secretary, NDMA

“We need to maintain a concrete case-based data on heat-related deaths and illnesses. This can help plan accurate interventions to bring down the numbers.”

- **Dr. Pradeep Khasnobis**, Joint Dir., Ministry of Health and Family Welfare



“We need to make our entire approach multi-sectoral so that the benefits reach the whole society. There is also a need to learn and adapt the Plans prepared by others to suit local needs instead of working from scratch.”

Dr. Dileep Mavalankar, Indian Institute of Public Health, Gandhinagar

“Mitigation measures need to be decided properly as each intervention behaves differently in different areas. For ex., more trees makes a bigger impact in low density areas and cool roofs work well in high density areas.”

- **Dr. Rajshree Kotharkar**, Professor, Visvesvaraya National Institute of Technology, Nagpur

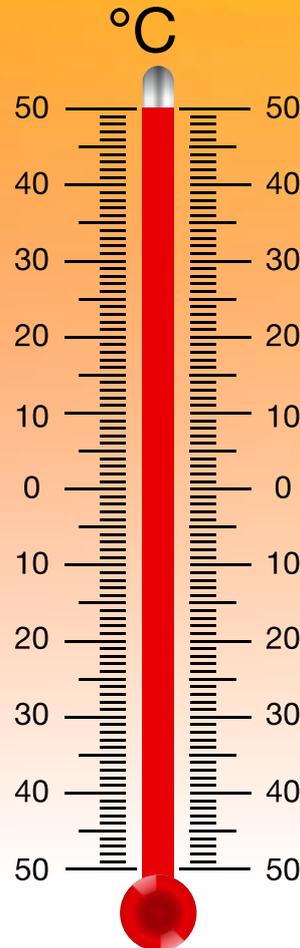


“More qualitative research is needed to understand people-specific vulnerabilities better.”

- **Dr. Lipika Nanda**, Public Health Foundation of India, Hyderabad



Are you prepared for Heat Wave?



It may not be possible to halt the onslaught of a heat wave but it is very well possible to reduce its effects. Here are some simple and effective ways to keep the heat from getting to you and your family:

- **Eat light, eat right:** Eat freshly home cooked, less-on-oil food. Add more vegetables and fruits. Stay away from tea, coffee and alcohol. Don't forget to drink sufficient water and other fluids such as *nimbu pani*, *torani*, *lassi* to keep yourself hydrated.
- **Paint your roof white:** It will reflect more sunlight and absorb less heat, thus reducing the amount of heat conducted to your home.
- **Make a kitchen garden:** On the roof or your backyard - to cool down the surroundings besides bringing you home-grown veggies. Try to plant creepers; the exteriors of your walls could breathe a sigh of relief.
- **Create a vertical garden:** They are a visual treat, they bring down pollution and they also bring down the heat levels. Go for as many as you can.
- **Cross ventilate:** Keep your windows, especially those right opposite another, open during mornings and late evenings when the air is comparatively cooler.
- **Use lighting judiciously:** Turn off lights when not in use – they radiate heat and fuel your power bills too.

Second International Workshop on Disaster Resilient Infrastructure

IWDRI 2019

Investment in disaster resilient infrastructure is essential for achieving all the loss reduction targets enshrined in the Sendai Framework. Over the last two years, India has been advocating for the "Coalition of the Disaster Resilient Infrastructure" at various international platforms, including the G20 summits and the Asian Ministerial Conference on Disaster

representatives from partner countries representing their disaster risk management agencies, key infrastructure sectors, multilateral development banks, UN agencies, academia, scientific institutions, private sector and policy think tanks.

IWDRI 2019 will look at the contours of such an intercountry knowledge partnership to be an effective instrument of building disaster resilience of



Risk Reduction (AMCDRR). CDRI is envisioned as an inter-country knowledge exchange and capacity development partnership.

In January 2018, the first International Workshop on Disaster Resilient Infrastructure (IWDRI 2018) was held in New Delhi. It brought together 21 countries and allied stakeholders to explore potential ideas for building the resilience of key infrastructure sectors (energy, transport, telecommunications, and water). This included 'system-of-systems thinking', creation of a global infrastructure inventory, a regional manual of practice and discussions on harmonization of policy provisions.

To further build on it, National Disaster Management Authority, (NDMA) India, in collaboration with the United Nations Office for Disaster Risk Reduction (UNISDR) is organizing the Second International Workshop on "Disaster Resilient Infrastructure" on March 19-20, 2019 in New Delhi.

The workshop will bring together

infrastructure. The workshop will also look at concrete action plans for capacity development of partner countries to upgrade their infrastructure assets, data standardization to facilitate knowledge exchange, among others.

Objectives of IWDRI 2019 are to:

- Identify good practices of disaster risk management in key infrastructure sectors (Transport, Energy, Telecom and Water).
- Identify specific areas and pathways for collaborative research on DRI.
- Discuss and co-create the broad contours of the CDRI as well as a notional roll-out plan for the next three years.
- Build a forum for members to work on areas of common interest and make specific commitments.

For more information, please visit the Workshop website: <https://resilientinfra.org/iwdri/>



Avalanche Do's and Don'ts

- Try to stay on the surface - you will have three times more chance of survival.
- Discard all equipment.
- Seek shelter, e.g., protector - rocks or trees, and hold tight.
- If you have found shelter, crouch slowly, in a ball, facing away from the snow slide.
- Cover nose and mouth - using a scarf helps to avoid suffocation.
- Arch hands over face to create an air - space.
- Jerk towards surface - this can act as a marker for rescuers.
- Once the avalanche stops, begin digging out - delay can allow snow to settle.
- Mark the location where other team members were last seen – use clothing, a pole, anything.
- Switch off the engine.
- Do not smoke or use a lighter or matches - this consumes oxygen.
- If, available, leave two-way radio on.

Avalanche Signs

- Steep slopes - between 25 and 45 degrees.
- Convex slopes (spoon - shaped) are the most dangerous, especially between late December and the end of January.
- North - facing slopes are most likely to see avalanches in mid-winter. South-facing slopes are also susceptible in warmer temperatures on sunny, spring days.
- Smooth, grassy slopes are more dangerous than areas bearing rocks, trees and heavy foliage, where snow has something to grip.
- New snow is the most dangerous.
- Rapid snow settlement is a good sign – loose, dry snow slides more easily.
- Loose, underlying snow is more dangerous than when compacted, use a ski-stick to check.
- Low temperatures increase the duration of snow instability, while a sudden temperature increase can cause wet snow slides.



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