

OCTOBER 2020



# AAPDA SAMVAAD



## Prime Minister's 10 Point Agenda for Disaster Risk Reduction

**Must  
Read**

- Reducing Cold Wave Risk
- Tackling Glacial Lake Outburst Floods

## Jan Andolan



On 9th October, team NDMA participated in Hon'ble Prime Minister's Jan Andolan and pledged to follow COVID-19 appropriate behaviour. Large hoardings were placed outside the office premises and posters were put inside the building to encourage NDMA employees to follow safety precautions at all times.

## Review of implementation of NDMP



On 9th October, NDMA held a meeting with States to review the implementation of the Guidelines issued by NDMA for Disaster Management and the National Disaster Management Plan, 2019.

## COVID-19 Management



On 9th October, NDMA conducted a meeting with SDMAs and DDMA's of Maharashtra, Karnataka, Kerala, Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Assam, Odisha to review and discuss issues related to COVID-19 management.

## National Guidelines on GLOFs



On the occasion of UN International Disaster Risk Reduction Day (13th October), NDMA virtually released the National Guidelines on Management of Glacial Lake Outburst Floods (GLOFs), Summary for Policy Makers on the Management of GLOFs and Compendium on the Management of GLOFs.

NDMA also e-released the Rapid Visual Screening (RVS) Primer for Earthquake Safety Assessment of Buildings. These documents can be viewed on the official website of NDMA.

## National Webinar on Cold Wave



On 14th October, NDMA conducted a National Webinar on Cold Wave. The keynote address was given by Lt Gen Syed Ata Hasnain (Retd), Member, NDMA and the webinar was inaugurated by Shri G.V.V. Sarma, Member Secretary, NDMA.

The webinar consisted of two technical sessions namely, 'early warning dissemination and sector specific measures' and 'sharing of experiences and capacity building.' The webinar attracted technical experts, policy makers, government officials and locals from around the country to understand the mitigation of this particular disaster. Dr L.S. Rathore, Former DGM, India Meteorological Department presented the concluding remarks and highlighted the roadmap for managing cold wave in India.

### Team NDMA visits Gorakhpur



On 16th October, team NDMA led by Shri Rajendra Singh, Member, NDMA and Shri Ramesh Kumar G., Joint Secretary (Capacity Building and Training) met with Hon'ble Chief Minister of Uttar Pradesh Shri Yogi Adityanath to discuss issues pertaining to disaster management and the level of preparedness of the State.

The team also visited the Integrated State Disaster Control Room and also met with Lt Gen Ravindra Pratap Sahi AVSM, Vice Chairman, Uttar Pradesh State Disaster Management Authority (UPSDMA), Lucknow.

Team NDMA also monitored the Aapda Mitra Scheme in Gorakhpur on 17th October.

Aapda Mitra is an initiative by NDMA to train community volunteers as first responders. The Aapda Mitra Volunteers in Gorakhpur conducted a mock drill 'Operation Jal Rakshak,' demonstrating CPR and the building of makeshift boats. Shri Rajendra Singh, Member, NDMA also interacted with the Aapda Mitra volunteers.

### Landslide Mitigation and DPR Preparation



Lt Gen Syed Ata Hasnain (Retd), Member, NDMA inaugurated a 5-day online training programme organised by NDMA from 19th-23rd October on 'Landslide Mitigation and Detailed Project Report (DPR) Preparation' for professionals from Maharashtra, Mizoram, Puducherry, Tripura and Assam.

### Webinar on Landslide Risk Reduction



On 29th October, NDMA organised a webinar on 'Landslide Risk Reduction through Community Participation,' where Lt Gen Syed Ata Hasnain (Retd), Member, NDMA gave the inaugural address.



# Prime Minister's 10 Point Agenda for Disaster Risk Reduction

India hosted its 2nd Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR), and the first after the international policy of Sendai Framework for Disaster Risk Reduction (DRR); in November 2016 at New Delhi, with participation of more than 4500 experts, practitioners and official delegates from across the Asia Pacific.

After the adoption of Sendai Framework, the international community adopted two other major frameworks to shape the future of humanity, namely, the Sustainable Development Goals and the Paris Agreement on Climate Change in 2015. Disaster Risk Reduction has a pivotal role in supporting adaptation to climate change as well as sustainable development.

Inaugurating the 7th AMCDRR, Shri Narendra Modi, Prime Minister of India, highlighted a 10- Point Agenda on Disaster Risk Reduction, that encompassed tools and approaches to address critical challenges in achieving sustainable development objectives and renewed efforts towards DRR.

1

## All development sectors must imbibe the principles of disaster risk management

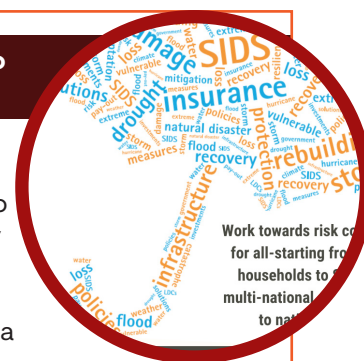
Development and disasters are two sides of a coin. While a planned development can reduce the risks of disasters, the absence of proper planning can aggravate them. Development should focus on reducing disaster risks and not creating them. It is therefore essential to imbibe the disaster risk reduction approach in all development schemes. This will ensure that all development projects are built according to appropriate standards and contribute to the resilience of communities they seek to serve.



2

## Risk coverage must include all, starting from poor households to SMEs to multinational corporations to nation states

Disasters result in loss of lives and damage to properties and assets. Those who survive face the challenges of their rehabilitation. This applies to all from poor households to SMEs to multinationals. Due to the increase in the intensity and frequency of natural disasters worldwide, emphasis is being placed on designing disaster risk reduction strategies and risk transfer tools. Insurance schemes are increasingly playing a visible role as a means of providing economic security against natural disasters.



3

Women's leadership and greater involvement should be central to disaster risk management

Women are generally seen as vulnerable to disasters. The increased vulnerability of women is primarily due to biological reasons but social and cultural factors are also associated which are often rooted through the community. Women can play an important role in disaster risk reduction at the household, society, community and beyond. It is necessary to encourage greater involvement and leadership of women in disaster risk management as their participation is critical to effectively managing disaster risk by designing and implementing gender-sensitive disaster risk reduction policies and plans.



4

Invest in risk mapping globally to improve global understanding of Nature and disaster risks

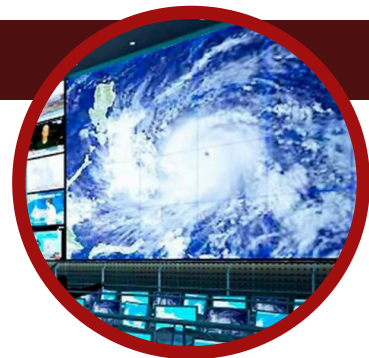
With a shared understanding of the nature and severity of disaster risks globally, their impact can be mitigated with better planning and preparedness. This requires undertaking multi-hazard risk assessments and developing maps for all major hazards in a standardized format to facilitate disaster risk reduction. By categorizing regions according to their level of vulnerability, it is possible to design and modify the developmental plans and activities over land.



5

Leverage technology to enhance the efficiency of disaster risk management efforts

Technology plays a crucial role in planning sustainable and disaster resilient infrastructure and systems. Efforts must be made to leverage technology to enhance the efficiency of our disaster risk management efforts. This requires the use of technology in resource planning, early warning systems for all major hazards etc. Effective actions when combined with right forecasting and prompt warnings can definitely avert large scale damages and destructions occurring through natural disasters.



6

Develop a network of universities to work on disaster-related issues

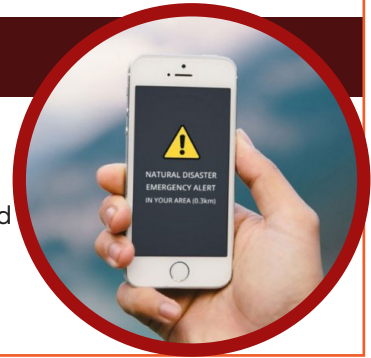
The role of academia in particular of the universities in disaster research and professional advancement is critical. It will be helpful to develop a network of universities and academic institutions to work on disaster-related aspects. As part of this network, different universities could specialize in multi-disciplinary with a focus on action/practical research on disaster issues most relevant to them.



7

Utilise the opportunities provided by social media and mobile technologies for disaster risk reduction

With disasters becoming a frequent phenomenon, social media is transforming disaster response. It has become a vital tool in helping government agencies and other rescue organizations respond quickly by organizing themselves and enabling citizens to connect more easily with authorities. It also helps in informing, raising public awareness about forecasting of disasters to a wider audience.



8

Build on local capacity and initiative to enhance disaster risk reduction

Disaster management must build on local capabilities and initiatives. The task of disaster risk management, particularly in rapidly growing economies, is so huge that formal institutions of the state can at best be instrumental in creating the enabling conditions. Specific actions have to be designed and implemented locally. Such efforts reduce risk and create opportunities for local development and sustainable livelihoods. Localization of disaster risk reduction will also ensure that good use is made of the traditional best practices and indigenous knowledge.



9

Make use of every opportunity to learn from disasters and, to achieve that, there must be studies on the lessons after every disaster

After every disaster there is a need to undertake research studies to understand the best practices and learn lessons to improve policy and disaster governance. Systematic documentation of previous disasters can help in guiding and planning for future disaster response and recovery and facilitating proactive approach to take measures which will actually reduce disaster risks, ensuring safety of society and precious resources.



10

Bring about greater cohesion in international response to disasters

Most regions of the world are prone to multiple disasters, and the complexity of risk is growing as well as the challenge of managing disasters. The impact of disasters at times expands across borders, hence the response and recovery also requires a coordinated and unified response by affected countries. Pre-disaster planning and preparedness can result in an effective and timely response, hence it is important to bring about greater cohesion in the international response to disasters. International forums and protocols serve as a tool for effectively addressing coordinated response and reducing the risk of disasters.



# REDUCING THE RISK OF COLD WAVE

**W**inter season in India brings along with it pleasant weather, relief from extreme heat, but also challenges for people vulnerable to cold weather conditions. A cold wave is a weather phenomenon that is distinguished by the cooling of air and the rapid fall in temperature within a 24 hour period. Cold wave in India has a major impact on the northern parts of the country affecting health, agriculture, livestock and the movement of people and goods in this region. According to experts, this extreme winter event is expected to rise despite the fact that the average global temperature is also rising. The current pandemic also posits a dual challenge for India during the winter season. It is imperative to take timely actions and not allow cold wave to turn into a major disaster, resulting in social and economic losses.



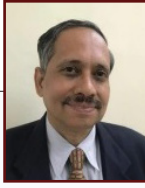
For this very purpose, on 14th October 2020, NDMA conducted a National Webinar on 'Cold Wave Risk Reduction' inviting academicians, policy makers, Central Ministries, NGOs, IGOs, State Governments and other stakeholders to discuss ways to tackle issues related to cold wave. The webinar was divided into two technical sessions.



#### Keynote Address

Prevention and preparedness for reducing cold wave impact on human health, livelihood and agriculture are an essential part of governance which now needs to take into consideration the present scenario of COVID-19, hence the roadmap we will have to adopt will be dual in nature, tackling both cold wave and COVID-19. ”

**Lt Gen Syed Ata Hasnain (Retd),**  
Member, NDMA



### “ Inaugural Address

For an affected person, the definition of a small or big hazard does not matter, but how the effect and impact can be reduced and this should be our focus. The purpose of a national level webinar is to bring together experts to discuss how to better the conditions for vulnerable people, animals and crops to deal with the impact of cold wave at the local level. In this regard, NDMA has held detailed discussions with the cold wave affected States to ensure preparedness and relief measures are in place. ”

- Shri G.V.V. Sarma,  
Member Secretary, NDMA

The first session which dealt with ‘Early Warning Dissemination and Sector Specific Measures’ began with Dr M. Mohapatra, Director General, India Meteorological Department who informed the audience about the formation of cold waves, major factors causing cold day conditions in India and the way forward with impact-based forecasts for sectors that would be affected by severe cold conditions.

Dr M.Prabhakar, Scientist & PI, CRIDA-ICAR, Ministry of Agriculture and Farmers Welfare spoke about the technological options to overcome cold wave conditions and prevent cold injury in plants. Dr U.B. Das, Ministry of Health and Family Welfare, highlighted the impact of cold wave on human health and preventive measures one should take to stay safe from cold wave.

Shri Bipin Rai, Member, Delhi Urban Shelter Improvement Board (DUSIB) shed light on the life of urban and rural poor during cold wave and measures taken to keep the vulnerable sections of society warm and safe

from extreme cold conditions. Dr Prabhjyot Kaur Sidhu, Punjab Agriculture University, Ludhiana ended the first technical session with her presentation focusing on the impact of cold wave on agriculture, livestock and highlighting major mitigation and adaptation strategies for cold wave on agriculture and livestock production.

The second technical session laid an emphasis on ‘Experience and Capacity Building.’ Shri S.A. Murugesan, Secretary (DM), Uttarakhand highlighted the State’s perspective of dealing with the cold spell which included early warning dissemination system, shelter homes, the role of SDRF and IEC activities. Major General Manoj Kumar Bindal, ED, NIDM concluded the second technical session highlighting the role of NIDM in preparing and sensitising local communities on the impact and preventive measures of cold wave.

The winter season of 2020 brings along with it the heightened challenge of the spread of coronavirus and increase in air pollution. In this context, the national webinar on cold wave risk reduction served as a platform to understand the way forward in dealing with cold waves with the onset of winter.



### “ Concluding Remarks

Pollution is a major factor in increasing the impact of cold wave conditions. Pollutants increase conditions of fog, reduce the day and night temperatures and have severe impact on health. Where the air pollution is severe, mortality increases 30% during extremely cold days. Hence, cold wave needs to be seen in combination with fog and air pollution. ”

Dr L.S. Rathore,  
Former DGM,  
India Meteorological Department



# THE FIVE FAQs- COLD WAVE

## 1 What is a cold wave?

A cold wave is a weather phenomenon that is distinguished by the cooling of air and the rapid fall in temperature within a 24 hour period. Occurrences of extreme low temperature in association with incursion of dry cold winds from north into the sub-continent are defined as cold waves. A region is said to be experiencing a cold wave when, according to the India Meteorological Department (IMD), temperatures dip by more than four degrees below normal.



## 2 How is a cold wave formed?

A cold wave is an influx of unusually cold air into middle or lower latitudes. Core of a cold wave at the surface is a strong high pressure centre that forms during winter in high latitudes. The surface high-pressure center of the cold air is accompanied with an upper-level convergence.



## 3 What is the effect of cold wave?

Cold waves can have adverse effects on human health such as hypothermia, frostbite. The symptoms of frostbite are numbness, white or pale appearance on fingers, toes, earlobes and the tip of the nose. Cold wave also has a severe impact on livestock and crops.



## 4 What to do incase of frostbite and hypothermia?

Incase of frostbite, put the areas affected in warm water. In case of hypothermia, firstly, get the person into a warm place and change his/her clothes, then warm the person's body with skin-to-skin contact, dry layers of blankets, clothes, towels, or sheets and give warm drinks to help increase body temperature. It is advised to seek medical attention if the condition worsens.



## 5 How can one protect oneself from a cold wave?

To protect oneself from cold wave, it is advised to have adequate warm clothing, emergency supplies and store adequate water as pipes may freeze. Stay indoor as much as possible, If wet, change clothes quickly to prevent loss of body heat. Prefer mittens over gloves as mittens provide more warmth and insulation from cold. Be aware of weather updates, drink hot drinks regularly.



A group of people, including children and adults, are walking along a narrow, rocky path that runs alongside a large, turbulent river. The river is filled with white water and rocks, indicating a high flow rate. The surrounding landscape is rugged and mountainous, with steep, rocky slopes. The sky is overcast with grey clouds. The overall scene depicts a challenging and potentially hazardous environment.

# Tackling Glacial Lake Outburst Floods

**M**ountain regions are characterized by sensitive ecosystems, enhanced occurrences of extreme weather events and natural catastrophes. Once regarded as hostile and economically nonviable regions, the Indian Himalayan Region (IHR) has in the latter part of the twentieth regions attracted major economic investments, as a result of which, its ecosystem is under tremendous stress of climate change and land use degradation. With rapid global warming, fragile mountain cryosphere and landscapes are evolving and new threats of landslides, Glacial Lake Outburst Floods(GLOFs), avalanches and flash floods are emerging at a very fast pace posing a serious risk to the vulnerable mountain communities.

## GLOF



The Indian Himalayan Region (IHR) is facing important challenges in view of coping with adverse effects of climate change. Like many other mountain regions worldwide, the IHR is particularly sensitive to changes in global climate, from both a physical and societal perspective. Physically, the disappearance of mountain glaciers, expansion of large glacial lakes and formation of new glacial lakes are amongst the most recognizable and dynamic impacts of climate warming in this environment. Frequent earthquakes, avalanches unleashes sudden, potentially disastrous floods in nearby communities.

A Glacial Lake Outburst Flood is a type of flood which occurs when water dammed by a glacier or a moraine is released. When glaciers melt, the water in these glacial lakes accumulates behind loose, naturally formed 'glacial/moraine dams' made of ice, sand, pebbles and ice residue. The weak structure of the moraine dam leads to abrupt failure of the dam on top of the glacial lake.

A catastrophic failure of the glacier or moraine dam can release the water over periods of minutes to days causing extreme downstream flooding. People residing at considerable distances downstream from unstable lakes have faced and continue to face serious threats to their lives and property as was seen in 2005 Parechu River in Himachal Pradesh, and 2013 Kedarnath

disaster. As a result, the threat of GLOF in particular is receiving increased attention and awareness for glacial lake monitoring and hazard mitigation has increased recently in India.

In this context, NDMA, Government of India in collaboration with the Swiss Agency for Development and Cooperation (SDC), Embassy of Switzerland, India, along with the expertise of national (Indian departments/institutions) and international experts (through SDC), have developed the NDMA Guidelines on the management of Glacial Lake Outburst Floods (GLOFs), Summary of the guidelines and Compendium on the same to formulate strategies for GLOF risk management, reduction and mitigation in the country.

These national documents have been e-released on the occasion of International Day for Disaster Risk Reduction on 13<sup>th</sup> of October, 2020 via video conference by Shri G.V.V Sarma, Member Secretary, NDMA. The E-copy of the Guidelines, Summary and Compendium is available on the NDMA website to guide concerned government Ministry/Department and other stakeholders who will take serious actions for preparedness, prevention, mitigation, response to GLOFs with awareness, capacity building at the areas affected by the GLOF disaster.



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**No Carelessness  
until there is a Cure**

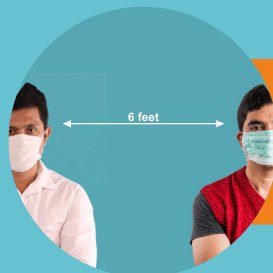
## Stay Protected from Corona



**Frequently wash  
your hands with soap**



**Wear your mask properly**



**Maintain safe distance**



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