



TIDINGS

NIDM Newsletter - 5/2019
(July - September)

Theme: Response and Relief



NATIONAL INSTITUTE OF DISASTER MANAGEMENT

(Ministry of Home Affairs, Govt. of India)

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Content

1	Training Programmes & Workshops	4
2	Other Activities	14
3	Thematic View	18
4	Details of Proposed Training Programme	33

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About NIDM

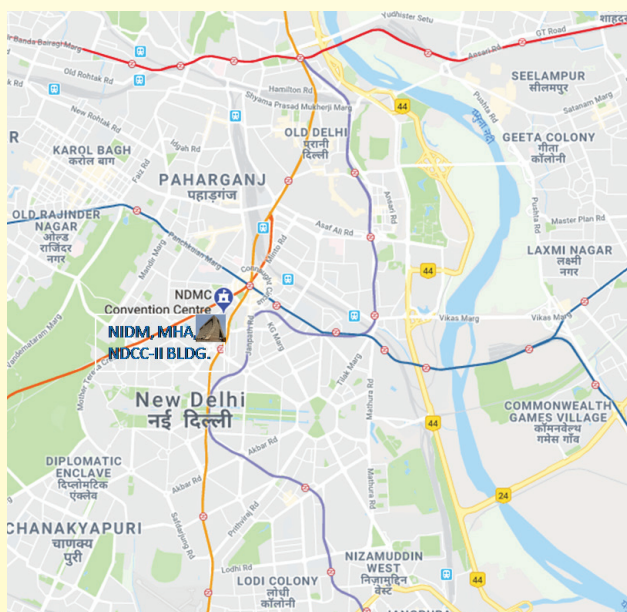
The National Institute of Disaster Management (NIDM) was constituted under an Act of Parliament with a vision to play the role of a premier institute for capacity development in India and the region. The efforts in this direction that began with the formation of the National Centre for Disaster Management (NCDM) in 1995 gained impetus with its redesignation as the National Institute of Disaster Management (NIDM) for training and capacity development.

Under the Disaster Management Act 2005, NIDM has been assigned nodal responsibilities for human resource development, capacity building, training, research, documentation and policy advocacy in the field of disaster management.

Both as a national Centre and then as the national Institute, NIDM has performed a crucial role in bringing disaster risk reduction to the forefront of the national agenda. The Institute believes that disaster risk reduction is possible only through promotion of a “Culture of Prevention” involving all stakeholders. The Institute works through strategic partnerships with various ministries and departments of the central, state and local governments, academic, research and technical organizations in India and abroad and other bi-lateral and multi-lateral international agencies.

NIDM is proud to have a multi-disciplinary core team of professionals working in various aspects of disaster management. In its endeavour to facilitate training and capacity development, the Institute has state-of-the-art facilities like class rooms, seminar hall and video-conferencing facilities etc. The Institute has a well-stocked library exclusively on the theme of disaster management and mitigation.

NIDM provides Capacity Building support to various National and State level agencies in the field of Disaster Management & Disaster Risk Reduction. The Institute’s vision is to create a Disaster Resilient India by building the capacity at all levels for disaster prevention and preparedness.



MESSAGE

Dear Readers,

I welcome you to the next quarterly issue of “Tidings” from July-September. The newsletter outlines the various activities and commitments fulfilled by our Institute in this tenure.

The institute conducted training programmes and workshops on different aspects of Disaster Risk Reduction (DRR) along with organizing sectoral consultative workshops. We also extended support to Ministry of Electronics and Information Technology and Ministry of Health and Family Welfare in conducting orientation workshops for their employees in the field of DRR so that they can develop their Disaster Management plans. The Post Disaster Needs Assessment tool developed by NIDM under the National Cyclone Risk Mitigation Project (NCRMP) was also released in September.

Marching towards priority four of Sendai Framework for Disaster Risk Reduction, which focuses on enhancing disaster preparedness for an effective response, we have dedicated this quarterly issue of our newsletter to the theme on “Response and Relief”. As we all know, an effective response and relief policy can go a long way in reducing disaster fatalities and losses. The challenge is augmented by the need to prepare ourselves not only to respond to primary disasters but also secondary disasters which may occur as an effect of primary disaster in quick succession. Responses to these types of severe and complex disasters are not simply local or regional issues, but should be the focus of responders, disaster scholars and professionals worldwide. Collaborative actions for effective and timely search and rescue, access to food and non-food relief supplies and provision of services need to be enhanced according to the local needs with joint efforts by national and local governments. Keeping this in view, the thematic section of ‘Tidings’ shares the views of our faculty members on various aspects of response and relief with our readers.

I would like to assure you that our Institute will continue to take steps towards our goal i.e. disaster resilient country and society with all our grit and determination. At the same time, we welcome and encourage our readers to exchange ideas and knowledge on disaster research, mitigation, adaptation, prevention and risk reduction with us to enrich our insights and strengthening our initiatives.



Major General Manoj Kumar Bindal, VSM
Executive Director, NIDM

TRAINING PROGRAMMES & Workshops

Disaster Management Plan for CPWD 3-5 July, 2019, Agartala Municipal Corporation Conference Hall, Tripura



A three day training program on “DM plan for Agartala City” was held at AMC Conference Hall, Agartala. This training was organized with an aim to target middle level Civil/architect/planners of Agartala Municipal Corporation, who have been responsible for implementing DM plan for all establishments in the city. In total 49 participants, all nominated from AMC, Agartala and also from all the district headquarters dealing with DM plan. Mr Shailesh Kumar Yadav,

Municipal Commissioner was the chief guest in the inaugural session. The program envisaged explanation of National DM plan-2016, application/demonstration of latest knowhow/technologies that included revision of the draft DM plan for Agartala city recently prepared by AMC, Agartala city recently prepared by AMC, Agartala. Participation from the various line departments of Agartala helped explaining the rudiments of DM plan at National, state and district perspectives. More so, DM plans for Fisheries, health & family welfare, Rural Development, Industries and Commerce, Transport, Agriculture and all the eight districts have also been prepared.

Sectoral Consultative Workshop on National Agriculture Disaster Management Plan 12 July, 2019, NIDM, New Delhi



National Institute of Disaster Management (NIDM) is developing a National Agriculture Disaster Management Plan (NADMP) for the Ministry of Agriculture and Farmers Welfare with the aim to strengthen resilience of farming community to deal with disasters and weather uncertainties. The plan will include HRVCA exercise, components of prevention, mitigation, response and recovery for which a framework has been developed, which is to be further developed upon.

In this context, a half-day sectoral consultation workshop on forenoon 12 July, 2019 at the Conference hall 2 floor, NDCC Building, NIDM, New Delhi was organized to discuss the

landscape of DM plan and its framework, methodology and template for Hazard Risk Vulnerability Analysis (HRVA).

The consultation workshop aimed at facilitating knowledge sharing among experts from Government agencies, scientific/ academic/ research institutions and NGOs working in the field of agriculture, climate change and disaster management. The workshop was a scoping exercise, organized to develop better understanding of agriculture sectoral landscape and disaster risk, to define guiding principles for NADMP, to develop a practical template/framework to conduct Hazards-Risk, Vulnerability and Capacity Assessment (HRVCA) at the national level and to develop better understanding of capacity needs.

Drought Management

16-18 July, 2019, Andhra Pradesh Human Resource Development Institute, Bapatla, Andhra Pradesh



NIDM conducted a three day National level Training Programme on “Drought Management” at Bapatla with the collaboration of Andhra Pradesh Human Resource Development Institute (APHRDI), during 16-18 July, 2019. The programme has been coordinated by Dr Surya Parkash, Head, Geo-Meteorological Risks Management Division, NIDM. 54 participants from various relevant departments of Central and State Governments, including SDMAs, ATIs, PWD, DGM, Forest Department,

Horticulture Departments, Administration and Revenue Officers, Academicians, DDMAs, NDRF, and DPOs etc. attended the programme. The programme was inaugurated by Shri Chakrapani Dittakavi, IAS (Retd.) DG APHRDI.

The programme aimed to enhance the human capacity for quick, effective, resilient, reliable proper drought risk reduction and resilience, to identify the significant role of different stakeholders from various sectors in reducing drought risks during unfavorable and adverse conditions, to provide tools for drought monitoring and risk assessment, to improve education, training and awareness related to droughts for decision makers, professionals and common masses.

The session focus on an effective national strategy that can be applied at different levels across various sectors for efficient risk management, to develop workable partnerships and linkages/networks among governance, administration, financial, legal and social organizations as well as professional and other stakeholders from media and the public.

School Safety Disaster Management Plan

22-24 July, 2019, Mahatma Gandhi State Institute of Public Administration (MGSIPA), Chandigarh



The program was inaugurated by Col. Dalbir Singh GM (Training, Projects & Consultancy), MGSIPA. Dr. Ritu Raj, Assistant Professor, NIDM then welcomed the participants and explained about objectives and sessions of the program.

Major General Manoj Kumar Bindal, VSM, Executive Director, NIDM, Ministry of Home Affairs, Government of India, was the chief guest for the valedictory session. In his valedictory address, Major General Manoj Kumar Bindal, VSM, shared his thoughts on school safety and disaster risk reduction. He also

shared his experience from 2001 Bhuj earthquake.

Gender and Disaster Management

22-26 July, 2019, NIDM, New Delhi

A five day training programme on “Gender and Disaster Management” was organized by the institute at New Delhi. The target group for the programme were senior and middle State level functionaries from Departments of Disaster Management, Social Welfare, Women and Child Development, Panchyati Raj, Rural Development and other nodal persons dealing with the issue.

The objectives of the programme included describing the gendered and differential impact of disasters on men and women, illustrating case studies highlighting the specific vulnerability of men and women in disasters and ways of addressing this vulnerability, learning from the lessons of the past disasters from a gender perspective, highlighting the



role of women in pre disaster phase, and; promoting the concept of empowerment of women through the process of disaster risk management. The programme aimed to sensitize, promote and institutionalize a gender sensitive approach to disaster management. A total of 41 participants from different states attended the programme.

Mainstreaming DRR into City Development Plan (ULBs) under National Cyclone Risk Mitigation Project 24-26 July, 2019, Gujarat State Disaster Management Authority, Gandhinagar

National Institute of Disaster Management (NIDM) organized a three days trainer's training programme on Mainstreaming Disaster Risk Reduction in City Development Plan (ULBs) under NCRMP in partnership with Gujarat State Disaster Management Authority (GSDMA), Gandhinagar, Gujarat from 24-26 July, 2019. The training program included lectures, interactive sessions, group assignments, exercises and discussions between participants and lecturers, which helped the participants to make out the idea of mainstreaming DRR in a City Development Plan. The participants were encouraged to share their experiences and ideas in mainstreaming DRR, which helped in better understanding of importance of having a disaster resilient and sustainable city. 17 participants attended the training programme.

The objective of the training programme was to discuss on practical approaches of mainstreaming DRR in city planning and to emphasize the need to identify the issues for urban resilience and role of key stakeholders and institutions in planning of DRR locally. The programme aimed to understand the disaster vulnerability of Gujarat and issues for cities and towns and discuss about infrastructure safety and resilience in a city and issues of urban planning.



Nature Based Solutions for Climate Resilience: Future of Indian Mangroves: National Consultative Workshop 5 August, 2019, YMCA, New Delhi

NIDM, Centre for excellence on Climate Resilience in collaboration with Institute for Global Environmental Strategies (IGES), Japan; Wildlife Institute of India (WII), Dehradun; Council of Scientific and Industrial Research (CSIR), National Environmental Engineering Research Institute, Nagpur and IUCN Commission on Ecosystems Management (CEM) organized one day workshop on "Nature Based Solutions for Climate Resilience" on 5 August 2019 at YMCA Auditorium, Delhi. The workshop aimed at understanding the opportunities and challenges of Nature Based Solutions for climate resilience and disaster risk reduction with a special focus on Indian mangroves. The event provided a platform for multi-stakeholder dialogues, bringing together researchers, professional and managers in the domain.



Around 30 participants including representatives from UNESCO C2C WII, IGES (University of Tokyo, Japan), ICUN, CSIR-NEERI, Society of Integrated Coastal Management (SICOM- MoEF&CC), NDMA, WTI, WFF-India, TERI-SAS, IIT Bombay and others actively contributed to the discussions during the workshop.

Forestry sector in Disaster Risk Reduction & Climate Resilience 5-9 August, 2019, Tropical Forest Research Institute, Jabalpur (Madhya Pradesh)

A five day training program on "Forestry sector in Disaster Risk Reduction & Climate Resilience" was organized by

Tropical Forest Research Institute (TFRI) in collaboration with National Institute of Disaster Management, New Delhi from 5-9 August, 2019 at T.F.R.I, Jabalpur. To sensitize the consequence of disasters on forests and how these disasters could be mitigated through management techniques, 45 participants (forest officers, paramilitary force officers and scientists) from different states of the country attended this programme.



In this training topics like 'Role of remote sensing and GIS in disaster mitigation and management in Indian forestry, Early warning and danger rating systems for forest fires Disasters in wildlife management, Role of ecosystem in DRR and climate adaptation in resilience building, Wildlife habitat modelling, Meteorological aspects of disaster management and forestry etc' were deliberated by eminent faculties of TFRI, ICAR- Directorate of Weed Research, Jabalpur, NEERI Nagpur, IMD Bhopal, ISRO, WWF- India, Wildlife Institute of India, Dehradun, IFS,

Forest Survey of India, Dehradun and NIDM, New Delhi etc. This training program was useful for the participants for carrying out disaster mitigation activities through forestry sector.

Climate Change and Extreme Weather Events 6-8 August, 2019, YMCA, New Delhi

A training programme on "Climate Change and Extreme Weather Events" was organized by NIDM on 6-8 August, 2019 at YMCA, New Delhi. The programme was inaugurated by Shri G.V.V. Sharma, IAS, Member Secretary NDMA and attended by 74 participants from various departments of National and State Government, namely Fire and Emergency Services, RBI (Security), Civil Defense, academicians of Educational Institutions, Land Revenue and Disaster Management, Animal Husbandry, State Climate Change Centers, Water Resource Department and NGOs etc., from 20 different states and UTs of India.



The programme aimed to enhance the understanding of the participants about extreme weather events, to assess the needs and gaps in understanding and management of extreme weather events, to promote linkages among stakeholders from disaster management authorities, government functionaries and communities, further to explore possibilities for disaster risk reduction and resilience against extreme weather events including adaptation to changing weather conditions and to promote culture of efficient and resilient communities for disaster risk reduction and climate change adaptation as well as mitigations.

Reputed experts who were involved with the programme included Shri Sharad Chandra from CWC and Dr. Shalini Saxena from MNCFC, Shri Naresh Kumar, Ms. Sunita, and Shri Vivendra Kumar from IMD, and Dr. Kishor Kumar from CSIR-CRRI.

Creation of Culture of Safety through Knowledge and Education 06-08 August, 2019, SIPARD, Agartala

NIDM in collaboration with State Institute of Public Administration and Rural Development, Tripura conducted a three days training program on "Creation of Culture of Safety through Knowledge and Education" during 6-8 August, 2019 at Agartala. The objective of the training program was to promote a culture of safety in schools, enhancing conceptual understanding of participants on various aspects of Disaster Risk Reduction and School Safety from an inclusive perspective, developing competencies of the participants to undertake disaster risk reduction measures in schools

and enabling the participants to develop the School Disaster Management Plan (SDMP). 27 participants attended this training program.

The contents of the course included the aspects regarding HVCR analysis, Group Exercise, Disaster Management Planning in schools and colleges, addressing gender based needs and disabilities.



Orientation Programme/Workshop for M.A and Ph.D Students: Special Centre for Disaster Research (SCDR), NIDM-JNU-DRP 07 August, 2019, Auditorium, SCDR, JNU, New Delhi

National Institute of Disaster Management (NIDM) and Jawaharlal Nehru University (JNU) have signed an Memorandum of understanding (MoU) in 2015 to collaborate with each other for joint research activities, training programmes, workshops and seminars along with exchange of academic material, data etc. Also, a new academic research centre at JNU has finally been set up as 'Special Centre for Disaster Research' (SCDR) and is trans-disciplinary in nature. This Special Centre as envisaged in the MoU between NIDM and JNU, was set up at JNU and was inaugurated by Honorable Minister of State Shri Kiren Rijiju on 26 October, 2017. The centre was established to facilitate research in various aspects of disaster management and also suggested that the nature of research would not be confined to strict parent disciplines of social sciences or natural sciences but transcend their boundaries and limitations to absorb both the scientific findings which provoke decision making and social sciences sensitivities to decipher and direct these findings to communities and institutions of decision making.



Workshop on Disaster Risk Management, Ministry of Electronics and Information Technology 08 August, 2019, New Delhi

An orientation workshop was organized on August 8, 2019 for the Ministry of Electronics and Information Technology at the Conference Hall of the Ministry. The aim of the workshop was to create general awareness about disaster risk reduction and disaster management aspects of the prevailing hazards in the NCR region with a special focus on the hazards which may cause disasters within the Ministry and its establishments.



There were 60 participants, comprised of officers and staff of the Ministry working at different levels and representing various divisions, attended the programme. Most of the participants were well versed about needs and requirements for disaster management within the Ministry.

Mainstreaming DRR in City Planning & Development 19-21 August, 2019, NIDM, New Delhi

NIDM conducted a National training programme on "Mainstreaming Disaster Risk Reduction in City Planning and Development" from 19-21 August, 2019 at New Delhi. 23 participants from 7 states and Central Ministries participated in this programme. The training course aimed to ensure safe development through inclusion of DRR principles in the planning stage to enable risk reduction to be built into the development system. This interactive programme discussed various issues of urban risk and the need for integration



of DRR interventions in the urban planning process. Assessment of hazard, vulnerability and risk, mitigation strategies in an urban context, global frameworks including Sustainable Development Goals, Sendai Framework for DRR and Paris Agreement for Climate Action was discussed. In addition, integration of DRR in local area planning, SMART Cities, methodology for DRR mainstreaming was also discussed during the training.

School Safety Plan and Safety Audits 19-21 August, 2019, SDMA Tripura

Training Programme on School Safety Plan and Safety Audit from 19-21 August, 2019 was organized by the Institute in collaboration with Tripura SDMA and State Institute of Public Administration and Rural Development (SIPARD) at Agartala. The aim of the training programme was to facilitate the creation of requisite capacity of the stakeholders involved with schools and to implement the school disaster management plan. This training programme was primarily designed for senior teachers and people who are involved in disaster risk mitigation activities for schools at different levels. The programme was also useful for administrators and senior teachers involved in school safety.



This was the first all-women participants programme organized by the Institute at the state level. There were 40 participants who attended the programme.

Workshop on "Asia-Pacific Disaster Vulnerability: The Disaster Riskscape and Pathways for Resilience, Inclusion and Empowerment" 23 August, 2019, Hotel Taj Ambassador, New Delhi

National Institute of Disaster management (NIDM) in collaboration with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) conducted a workshop on 'Asia-Pacific Disaster Vulnerability, The Disaster Riskscape and pathways for Resilience, Inclusion and Empowerment' that was held on 23 August, 2019 at Hotel Taj Ambassador, New Delhi. Around 27 participants attended the workshop. Asia and the Pacific regions faced a daunting spectrum of natural disasters which are growing in frequency, complexity and severity due to climate change, rapid urbanization and environmental degradation. Many countries in the region could be reaching a tipping point beyond which disaster risk exceeds their capacity to respond.



The Asia-Pacific Disaster Report 2019, assessed the scale of losses across the Disaster 'Riskscape' and estimated the amounts that countries would need to invest to outpace growing disaster risks. While resilience building has required significant additional resources, the report showed the amounts that are small when compared to the amounts that countries in the region are currently losing due to disasters. Similarly, the report explored on how the emerging technologies such as big data and digital identities can be used to ensure the poorest and most vulnerable groups were included in policy interventions. The report also proposed a set regional policy actions. All these aspects were discussed in the following workshop.

State Level Workshop on Managing the Cyclone Fani; Lessons Learnt and the Way Forward 26-28 August, 2019, Orissa

NIDM organized a three day workshop in collaboration with OSDMA on 26-28 of August, 2019. 300 participants attended the Lessons Learnt workshop. All government officials from district administration attended, followed by search and rescue teams like NDRF, SDRF, civil defence, ODRF and lastly NGOs/INGO's. All stakeholders shared their experiences of responding to FANI, the challenges faced, lessons learned and the action plan designed for facing the future disasters. The documentation of experiences of FANI could help to mould and strengthen the risk reduction and disaster management strategies of the state as a whole and how it could help other states in improving theirs.

After FANI, an increased demand for GEN Sets, Machineries, Gang men were raised profoundly by the departments and stakeholder involved in responding to the disaster. Action plans of each sector would naturally be designed accordingly. Though this is relevant in combating the future disasters, it is also important to foresee the risks unseen in the past or during FANI for ensuring better resilience in combating the future disasters. Inclusivism of disabled, old aged, women, physically challenged in disaster response were widely discussed in this workshop. There was a shortage of safe drinking water, exclusiveness, present of castes and distribution of government relief. Action plan must be designed accordingly with the intention of meeting these challenges.



School Safety Disaster Management Plan 28-30 August, 2019, HCM-RIPA

NIDM conducted the training program on School Safety Disaster Management Plan at HCM Rajasthan State Institute of Public Administration, Jaipur from 28-30 August, 2019 with the objective to promote a culture of disaster preparedness in school. This training program was based on School Safety module designed by NIDM.



Ms. Kalpana Agarwal, RAS - Joint Secretary, Disaster Management, Relief & Civil Defence inaugurated the training program. In her inauguration address, she highlighted the role of teachers in creating disasters resilient societies. 56 women teachers from different districts of Rajasthan participated in the training program.

United Nations Convention to Combat Desertification, Conference of the Parties (COP-14) Special Event: Reducing Drought Risk to improve Land-Water Resilience: mainstreaming ecoDRR Pathways and Tools 2 September, 2019, Greater Noida, NCR

Centre of Excellence on Climate Resilience, National Institute of Disaster Management in collaboration with IUCN-CEM, South Asia organized a side event on the theme "Reducing Drought Risk to improve Land-Water Resilience: mainstreaming ecoDRR Pathways and Tools". The session aimed to discuss about the increasing severity of drought and key hotspots of drought led land degradation, reviewed the existing drought risk reduction strategies and identified resilience tools for ecoDRR based solution in developmental planning. The conference also focussed on development of a road-map for achieving SDGs, Paris Climate Agreement, SFDRR, enhancing climate resilience and enhancing farmers ease of living, with lessons towards enabling a "global drought mitigation initiative".

80 participants attended the session including CRIDA, IARI, IMD, NDMA, NIDM, CSIR-NEERI, DAC&FW, MNCFC; UN agencies including IUCN & IUCN-CEM; International organizations including GIZ, WHO-India, GGGI; NGOs/iNGOs implementers, and from various research and academic institutions including Delhi University, WII, GB Pant University, BITS-Goa, TERI-SAS, IGNOU, RGIEPT, professional and business organizations, etc.



Coastal Disaster Risk Reduction and Resilience 03-05 September, 2019, Vishakhapatnam, Andhra Pradesh

NIDM conducted a three day National level Training Programme on “Coastal Disaster Risk Reduction and Resilience” at Vishakhapatnam with the collaboration of APHRDI, during 3-5 September 2019. The programme was coordinated by Dr Surya Parkash, Head, Geo-Meteorological Risks Management Division, NIDM with assistance from Miss Harjeet Kaur, Young Professional, Specialized Centre on Coastal Disaster Risk Reduction and Resilience, NIDM. There were 120 participants from various relevant departments of Central and State Governments, including NDRF, SDRF, APSDMA, Animal Husbandry, Medical & Health, Civil Defense. The programme was inaugurated by Shri Chakrapani Dittakavi, IAS (Retd.) DG APHRDI.

The programme aimed to carry out hazard hunting and understand the potential disaster risks in the coastal zones, to learn about the concepts of disaster risk reduction and resilience, to discuss challenges and gaps in current risk

management practices to prevent and reduce the impacts of coastal disasters, to provide recommendations on how to reduce the vulnerabilities related to coastal disasters can be reduced through respective provisions in the disaster management act 2005 and to implement related aspects in the Disaster Management Plans, Standard Operating Procedures on disaster risk assessment, prevention, mitigation, monitoring, early warning, efficient response, rehabilitation, reconstruction, relocation and recovery.

The programme discussed about the basic concept of Disaster Management, Risk Reduction and Resilience, Hazard, Vulnerability, Capacity and Risk Assessment with respect to some case studies of coastal cities. It also emphasized on India Disaster Resources Network.



Assessment with respect to some case studies of coastal cities. It also emphasized on India Disaster Resources Network.

Workshop on ‘Disaster Management’ jointly organized by NIDM, MHA and GAIL Ministry of Petroleum & Natural Gas (MoP&NG) 03-05 September, 2019, GTI, Noida



NIDM conducted a two day National level training workshop on “Disaster Management” in Noida with the collaboration of GAIL, during 11-12 September, 2019. The programme was coordinated by Dr Surya Parkash, Head, Geo-Meteorological Risks Management Division. There were 46 participants from various relevant departments of Public Sector Undertakings (PSUs) particularly from GAIL and Urban Local Bodies, including academicians of Educational Institutions like JNU and other NGOs etc. The programme was inaugurated by Mr. Dharmendra Khatri, Chief Manager (Training), GAIL and Dr Surya Parkash, NIDM .

The programme aimed to develop better understanding about Disaster Risk Reduction and Resilience (DRR&R), to learn about the relevant Act, Policy, Plan, Guidelines and SOPs on Disaster Management in the country, to know about the important international agreements and declarations on disaster risk reduction, climate change, urbanization and sustainable development, to initiate the activities of formulation of

disaster management plan for their functional and geographical regimes, to discuss the strengthening mechanisms for effective implementation of disaster management related activities.

The programme discussed about the basic concept of Disaster Management Act with Roles and Responsibilities of the Ministries, National Disaster Management Policy and Plan, Integrating SFDRR, SDGs, Climate Change, Urbanization Agenda and PM's 10 Points for DRR, Guidelines for Preparation of DM Plans.

Urban Risk Mitigation: Making Cities Resilient **12-14 September, 2019, Tamil Nadu Institute of Urban Studies, Coimbatore, Tamil Nadu**

A training programme on Urban Risk Mitigation: Making Cities Resilient was conducted by NIDM in collaboration with Tamil Nadu Institute of Urban Studies, Coimbatore from 12-14 September, 2019. 69 participants from various Urban Local Bodies, Development Authorities, Government departments, faculty members from local engineering colleges attended the programme. The objective of the programme was to orient participants with the issues of disaster management in the context of urban settlements, implications of urban risk, framework for mainstreaming DRR into urban development and planning for risk-sensitive cities. A number of issues regarding urban risks and strategies for mitigation and methodologies for building resilience into development systems were discussed during the training. Table top exercises, scenario building and strategy formulation sessions were conducted during the training. In addition to NIDM faculty, experts from Vellore Institute of Technology, Coimbatore Smart City Limited etc. conducted the sessions and contributed to the discourse.



Mainstreaming Disaster Risk Reduction in Schools **16-18 September, 2019, YMCA, New Delhi**

NIDM conducted a Training Programme on “Mainstreaming Disaster Risk Reduction in Schools” from 16-18 September, 2019 at New Delhi. The target group for the programme were middle state level functionaries from Departments of Disaster Management, Education, Women and Child Development, State Disaster Management Authorities and other nodal persons dealing with the issue. The aim of the programme was to implement disaster risk reduction activities in schools. This was the first National programme specifically for women participants. 43 participants from different states attended the programme. The participants discussed about various issues like structural and non structural measures for safety of school buildings, development of School Disaster Management Plan, physical health safety of children, psychosocial care for children in disasters and integration of disaster management in school curriculum.

HRVCA Workshop under “National Agriculture Disaster Management Plan” of the Ministry of Agriculture and Farmers Welfare, Govt. of India. 17 September, 2019, MoAFW, New Delhi

NIDM (Centre of Excellence on Climate Change) with Ministry of Agriculture and Farmers Welfare, Govt. of India, organized a half-day workshop under “National Agriculture Disaster Management Plan” of the Ministry of Agriculture and Farmers Welfare, Govt. of India on 17 September, 2019 at Krishi Bhawan, MoAFW, New Delhi to discuss and complete the Hazard Risk Vulnerability and Capacity Analysis (HRVCA) exercise with all the divisions of DoAC&FW and DARE Institutes.

The workshop was inaugurated by the Maj. Gen. Manoj Kumar Bindal, Executive Director, NIDM, and Sri Amitabh Gautam, Joint Secretary–Drought Management, MoAFW, they explained the importance of NADMP and HRVCA exercise to the participants. Dr. Anil K Gupta, HOD of ECDRM Division, illustrated the purpose of the HRVCA workshop and its role in the plan. A brief presentation was given by Ms Richa Srivastava, Research Consultant, NADMP Project, NIDM, about the process and status of HRVCA exercise to all the division's nodal officers of DoAC&FW and DARE Institutes.



The HRVCA and RMRS (Risk Mitigation and Response Strategy) template was filled successfully on the spot by all the Nodal Officers with the support of NADMP team.

The program was attended by Nodal Officers of DoAC&FW and DARE institutes and coordinated by Dr. Anil K Gupta, HOD of ECDRM Division with NADMP team under the Centre of Excellence on Climate Change at NIDM.

Orientation workshop on Disaster Management for the Ministry of Health and Family Welfare 19 September, 2019, MoHFW, New Delhi

A half day sensitization workshop was organized at Ministry of Health and Family Welfare (MoHFW) at Nirman Bhawan on 19 September, 2019. 40 participants from the health ministry attended the workshop. The programme was inaugurated by Dr. Tanu Jain, ADG Training and Dr. U.B. Das, Directorate General of Health Services who emphasized on the need for understanding disasters in general and with respect to health concerns as well. The session started with an inaugural address by Dr. Anil Gupta, Associate Professor, EDRM Division, NIDM who highlighted the importance of integrating disaster management practices in the health sector and quoted few examples regarding the same. Dr. Sushma Guleria, Assistance Professor, NIDM gave a brief insight into the basic concepts and terminologies of the disaster management subject. Dr. Ajinder Walia, Assistant Professor, NIDM shared an overview of disaster management plan at family level and also discussed the preparation of family disaster management kit.

This was followed by Dr. Amir Ali Khan, Assistant Professor, NIDM who discussed various Dos' and Donts' for various common hazards such as fire, earthquakes, and flood safety tips. He also emphasized on the need to have mock drills. It emerged that disaster management is indeed an imperative integral component of all plans and preparations and the Health Ministry has shown interest to take this forward with a more detailed workshop on structural and non-structural safety and office disaster preparedness planning.

School Safety Disaster Management Plan 19-21 September, 2019, Port Blair

National Institute of Disaster Management (NIDM), in collaboration with A & N Administration, conducted a three day training program on School Safety Disaster Management Plan for the teachers of A & N Islands at Port Blair during 19-21 September, 2019. 80 participants attended this training program. The aim of the training program was to enhance the capacity of the stakeholders involved with schools and to prepare and implement the school disaster management plan effectively.

The Secretary (DM), Dr. Angel Bhati Chauhan, Asst. Professor NIDM, Dr. Ritu Raj, and the Director(DM), Shri Govind Ram were present in its inaugural session.

The Secretary (DM), while speaking on the occasion lauded the role of teachers in grooming the children and said that they have greater role in ensuring safety and security of the students in their respective schools. For this, they need to know how to safeguard one self and to educate the students regarding various safety and security measures during calamity.

Dr. Ritu Raj, the Course Coordinator, while highlighting the activities of NIDM informed that the Institute provides training to master trainers from different states across the country, which in turn will provide training on disaster preparedness.

National Training Workshop on Disaster Risk Mitigation of Cultural Heritage Sites and Museums 23-26 September, Yashada, Pune

National Training Workshop on Cultural Heritage Sites & Museums was conducted by NIDM in collaboration with Yashwantrao Chavan Academy of Development Administration (YASHADA) at Pune from 23-26 September, 2019. 44 participants from heritage cells of municipalities, departments of culture and officials from the museum sector (curators, conservationists, security and maintenance personnel) and few research scholars attended the programme. Resource persons included faculty from NIDM and YASHADA, Director of Archaeology & Museums, Govt. of Maharashtra and faculty from Deccan College, Pune. A field trip on Risk Identification and Assessment conducted at Kelkar Museum, Nanavada and Phulewada was highly appreciated by the participants



OTHER ACTIVITIES

First Meeting of the Working Group on National Agriculture Disaster Management Plan for Ministry of Agriculture & Farmers' Welfare, 12 July 2019, New Delhi



The first meeting of working group was organized to discuss the landscape of NADMP for the Ministry of Agriculture and Farmers Welfare and its framework and template for Hazard Risk Vulnerability and Capacity Analysis (HRVCA). The working group involved Prof. V. K. Seghal, Principal Scientist, IARI, Dr. G Rabindra Chary, Director, CRIDA, Dr. Himanshu Pathak, Director, ICAR-NRRI, Dr. P. Krishnan, Principal Scientist, NAARM, Dr. Shibendu Shankar Ray, Director, MNCFC, Dr. S. D. Attri, Scientist F, IMD, Sri Anup Kr Srivastava, Senior Consultant, NDMA, Mr. Vijay Soni, Under Secretary,

(DM) MoAGFW and Dr. Anil K. Gupta, PD NADMP, NIDM.

Dr Anil K Gupta welcomed all the members and an elaborate session was carried off on HRVCA exercise format. The discussion was led by Dr G.R. Chary and Prof. V. K. Sehgal with other experts and few points were suggested to incorporate in the HRVCA format to make it more comprehensive. It was informed that the HRVCA exercise will be done with each division of MoAGFW and the format of the template will be prepared according to every division's mandate.

Working group members gave their useful inputs on the questionnaire format of background information, components and indicators should be added more to Hazard analysis, Vulnerability analysis and Capacity Analysis exercise. Further, they suggested to add a key on the terminology/phrases at the end of the format to have better understanding. The inputs and outcomes from the meeting will be incorporated in the HRVCA exercise format.

Orientation Programme on Child Centric Disaster Risk Reduction in Collaboration with Odisha State Disaster Management Authority, 7-8 August 2019, Bhubaneswar, Odisha

National Institute of Disaster Management South Campus has successfully conducted 'Orientation Training Programme on Child Centric Disaster Risk Reduction' in collaboration with OSDMA on 7-8 August, 2019 at Hotel New Marion, Bhubaneswar, Odisha. The programme was supported by UNICEF. Aim of the training programme was to orient the concept of CCDRR among the officials, Government of Odisha. 44 participants were participated in this training programme. Prof. Santosh Kumar, Head, GDRR, NIDM delivered inaugural address. Shri Manoj Kumar Bindal, Executive Director, NIDM, delivered valedictory address. Mr. Pradeep Kumar Nayak, Chief General Manager, OSDMA, Mr. Sarbjit Singh Shaota, Emergency Specialist, DRR UNICEF and Shri. Bishnupada Sethi, IAS, Commissioner and Managing Director, OSDMA, were felicitated by the programme.



Orientation Training programme on Child Centric Disaster Risk Reduction at Andhra Pradesh Human Resource Development Institute 20-21 August, 2019, APHRDI, Bapatla



NIDM South Campus, in its endeavor of creating awareness on Child Centric Disaster Risk Reduction (CCDRR) among Government officers across the nation, conducted its second orientation training programme on CCDRR in Andhra Pradesh. The training was held on 20-21 August, 2019 at Andhra Pradesh Human Resource Development Institute (APHRDI), Bapatla. 47 Government Officers participated in the training programme, who represented

the departments of Women and Child Welfare, Education, Health and Revenue.

Orientation Programme on CCDRR for officials of Govt. of Maharashtra 20-21 August, 2019, Yashwantrao Chavan Academy of Development Administration, Pune



National Institute of Disaster Management South Campus has conducted 'Orientation Training Programme on Child Centric Disaster Risk Reduction' in collaboration with YASHADA on 27-28 August, 2019 at YASHADA, Pune, Maharashtra. The programme was supported by UNICEF. Objective of these two days training programme was to orient officials of State level sectoral

departments, Administrative Training Institutions and civil society practitioners to help build their knowledge, skills and perspectives towards Child Centric Disaster Risk Reduction. Col. V.N. Supanekar, Director, Centre for Disaster Management, YASHADA delivered welcome address. Dr.Kumar Raka, Head, South Campus, delivered the inaugural address. 57 participants participated in this training programme. Dr Balu coordinated the programme.

Orientation Programme on Child Centric Disaster Risk Reduction at Dr. Marri Channa Reddy Human Resource Development, Institute of Telangana 16-17 September 2019, Hyderabad, Telangana



National Institute of Disaster Management South Campus has successfully conducted 'Orientation Training Programme on Child Centric Disaster Risk Reduction' in collaboration with MCRHRDIT on 16-17 September, 2019 at MCRHRDIT, Hyderabad, Telangana. The programme was supported by UNICEF. 50 participants participated in this training programme. Mr. Vinod Ekpode, Faculty, Centre for Sustainable Development Goals, MCRHRDI and Mrs. Divya, Director, Centre for Sustainable Development Goals, MCRHRDI delivered the special address during inauguration. Dr Balu felicitated the

conduct of programme. Dr.Kumar Raka delivered the valedictory address.

Session on Soft Skills for better Response at NDRF Headquarters 20 September 2019, New Delhi



National Disaster Response Force (NDRF) had conducted a one day workshop on Soft Skills at their Headquarters in NDCC-II Building, New Delhi on 20 September, 2019. The main objective of the workshop was to inculcate soft skills amongst their officials so as to enable them to perform their duties better. The workshop was attended by 40 NDRF officials deputed in various battalions across the country.

Dr. Sushma Guleria, Assistant Professor, NIDM took a session on the subject. She discussed with the group about various qualities like Leadership, presentation, problem solving, Time management, Communication and coordination, Inter-personal skills etc. with the

use of various group activities.

National Workshop on Post Disaster Needs Assessment (PDNA) 23 September, 2019, India Habitat Centre, Lodhi Road, New Delhi



National Institute of Disaster Management (NIDM) conducted a one-day workshop on Post Disaster Needs Assessment (PDNA) on 23 September, 2019 at India Habitat Centre, Delhi. The Post Disaster Needs Assessment (PDNA) tool developed under the study, has been adapted for India, on the basis of best current international practices and customized to local conditions, which will enable the comprehensive and scientific assessment of recovery and reconstruction needs on the basis of a thorough analysis of disaster effects and impacts.

About 92 participants from various ministries, state disaster management authorities, UN agencies,

World Bank, and private sector houses attended the workshop. Prof. Santosh Kumar initiated the welcome address of the dignitaries on dias; Shri Nityanand Rai, Hon'ble Minister of State for Home Affairs, Maj. Gen. Manoj Kumar Bindal, Executive Director, NIDM and Mr. G.V.V. Sarma, Member Secretary NDMA. The programme was inaugurated by the Hon'ble Minister of State for Home Affairs, Shri Nityanand Rai, followed by the release of PDNA Manual, Handbook & Standard Operating Procedures (SOP).

Faculty Development Programme on Child Centric Disaster Risk Reduction 24-25 September, 2019, Yashwantrao Chavan Academy of Development Administration, Pune

National Institute of Disaster Management, South Campus had conducted 'Faculty Development Programme on Child Centric Disaster Risk Reduction' in collaboration with Yashwantrao Chavan Academy of Development Administration (YASHADA) on 24-25 September, 2019 at YASHADA, Pune, Maharashtra. Aim of the Faculty Development Programme was to build the capacity of faculties on the concept of Child Centric Disaster Risk Reduction among the faculties of Department of Health & Education and also professionals of civil society working in the field.



Col. V.N. Supanekar, Director, Centre for Disaster Management, YASHADA delivered welcome address. Dr.Kumar Raka, Programme Officer, South Campus, delivered the inaugural address.

70 professionals participated in this programme. The programme was supported by UNICEF.

International Symposium on “Disaster Resilience and Green Growth for Sustainable Development” 26-27 September 2019, Constitution Club of India, New Delhi

Centre for Excellence on Climate Resilience, National Institute of Disaster Management (NIDM) New Delhi and Department of Science & Technology (DST), Government of India in collaboration with The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Global Green Growth Institute, Seoul (Korea), World Health Organization (WHO), UNICEF, National Centre for Disease Control (NCDC) MoH&FW, IUCN-Commission on Ecosystem Management (CEM South Asia), Springer Nature (Global Publishing) organized an International Symposium on “Disaster Resilience and Green Growth for Sustainable Development” on 26-27 September, 2019 at the Constitution Club of India, New Delhi. The symposium was organized under the Climate Adaptive Planning for Resilience and Sustainability (CAP-RES) project.



Professor D P Singh, Chairman, University Grants Commission (UGC) presided over the inaugural session as chief guest in the esteemed presence of Dr. Akhilesh Gupta, Advisor and Head SPLICE- Climate Change Programme, DST, Shri Mohamed El Khawad, Programme Director Environment, Climate Change and NRM, GIZ India, Dr. Hendrik Jan Bekedam, WHO Representative to India, Prof V K Sharma, Vice Chairman of Sikkim State Development Authority and Major Gen. Manoj Kumar Bindal, ED-NIDM.

The symposium was attended by more than 200 distinguished delegates including experts from the Government and International agencies including UN, NGOs, implementing Agencies, academia, research institutes, and professionals from the field of health, climate and disaster resilience and sustainable development.

Overall, aim of the conference was to review the state of research and knowledge on the subject, across the key themes of CAP-RES, and deliberate on a roadmap for addressing knowledge and capacity gaps in the subject by engaging with the institutions, researchers and experts.

THEMATIC VIEWS

Disaster Response: Challenges of the Future

- Dr. Santosh Kumar

I am not a very disaster response oriented person. I believe more in disaster risk reduction ex-ante. However, while working in disaster management one cannot ignore disaster response, as it is visible and important, where as risk reduction is invisible but even more important than the response. Bhopal gas tragedy 1984 has been the biggest scar on disaster response in the country but off late response in other disasters such as cyclone Hudhud, Phyllis, Gaza, Fani, Floods in Kerala, Bihar, Assam floods are considered as improved response leading to reduced number of human and livestock deaths. In other words, new response capacity developed over the years has been able to prevent large number of deaths. Secondly, in India millions of people and live-stock get affected in disasters. Capacity to evacuate such big numbers and taken to safer place is also to be applauded. These are the good stories where we may feel proud but we should not be complacent as there is always a chance of improvement. Similarly good and bad stories are also happenings in other countries both inside the region and outside the region. As USA was criticized heavily for bad response in Katrina but in many other events they did exemplary work. All are constantly working on improving their system on a regular basis. Disasters are uncertain and preparedness for response against uncertainties is a real challenge.

India is now drawing a sense of satisfaction in sharing its capacity to its neighboring countries by providing bilateral support both in ex-ante and ex-post. In the recent past, India extended its disaster response support to Japan, Maldives, Myanmar, Nepal earthquake etc. and earned good will from the people and government of the affected countries. I was instrumental as Director SAARC Disaster Management Centre in taking India's strength to other South Asian Nations in a more organized and systematic manner so that new regional response system could be developed. Subsequently, a joint exercise was conducted by NDRF supported by NDMA and NIDM. It was an effort for making the South Asian Nations safer. SAARC and BIMSTEC joint response exercises were conducted where all the member states contributed. Disaster do not acknowledges political boundaries, as the scale and intensity of disasters is huge leading to a catastrophic event. Disaster affected countries might not be able to handle the situation effectively alone (especially in cascading situation as happened in Japan-earthquake leading to Tsunami and Tsunami leading to floods and flooding to nuclear emission and complete power failure and country was into darkness) and hence it is now becoming inevitable for the countries to join hands and fight together. The investment of one country in building response capacity can help other countries too in drawing the dividends. ASEAN nations have developed a regional response system for disasters located at AHA Centre, Jakarta, Indonesia.

Disaster response has been the priority for the state for long. An old treatise written during Mauryan dynasty Kautilya Arthashastra has specifically mentioned about the role of state in Disaster Management. Initially in the 18th century disaster was considered as an "act of god" and hence entire focus was on relief, largely taken care of by the communities and societies. Hence, not much focus was given on strengthening crisis governance. Later in 19th century, again under the colonial governance, disaster was again considered as "wrath of nature" so the focus was shifted on responding to response and relief. In the 20th century the realization was that disaster is not the act of god or wrath of nature but it is actually human induced and hence human interventions can help in reducing the impact by its impacts. Emergency response works on Golden hour concept. Be it natural disaster or human induced, suffering of people should be the minimum. With this idea institutional system, strengthening of response system, human capability, instruments, Information system are taken as primary concerns. In India, setting up of NDRF, SDRF, Civil Defense, Community Capacity Building, building capacity of local forces, Standard Operational Procedures, Humanitarian Assistance in the form of National Disaster Response Force and State Disaster Response Force were created. The dividends of this investment are paying in preventing the preventable deaths. India is further working on building a system of response where Incident Response system is the key. NIDM is helping states in building response capacity by providing training support

and making efforts for building professional systems for responding to disasters. NIDM has also acknowledged the role of local communities, police, civil defense, fire services, home guards and civil society groups as key local responders and taking initiatives for building their capacities too. These efforts are not enough as disaster itself is changing its profile very fast and hence “business as usual” will not work. We have to be constantly on our toes in adapting and coping with the change.

To conclude, disaster response has many challenges in changing climate scenario. At the national level, systems are getting strengthened but at the state and local levels, capacity is yet to match. Dependency on the central resources are still high but it will work well only when the state and local level systems are built. Communities are the key for successful response and are the biggest strength in the entire gamut of disaster response. Their capacity building process has to be strengthened. Hon’ble Prime Minister’s Ten Point Agenda and Sendai framework, both have highlighted for building local capacity for response. There is a need to launch national programme for community’s engagement. On the other hand, at the International level, regional process also needs to be strengthened in addressing trans boundary disasters. India must take the lead on a sustainable basis by engaging, supporting and strengthening the regional process while thinking of launching a capacity development programme for the organizations engaged in disaster management at the same time.

Risk Reduction Measures against Dam failure

- Dr. Surya Parkash

Dams are critical infrastructures for irrigation, power generation, water resource management, flood protection, drought risk reduction and economic development. However, Dam burst also known as dam failure is a catastrophic phenomenon of “failure characterized by the rapid, sudden, and uncontrolled release of impounded water or likelihood of such an uncontrolled release” due to natural or anthropogenic causes/factors. According to the International Commission on Large Dams (ICOLD) (Fig. 1), Out of approximate 36,000 large dams listed in the World Register of Dams, there have been around 300 reported accidents.

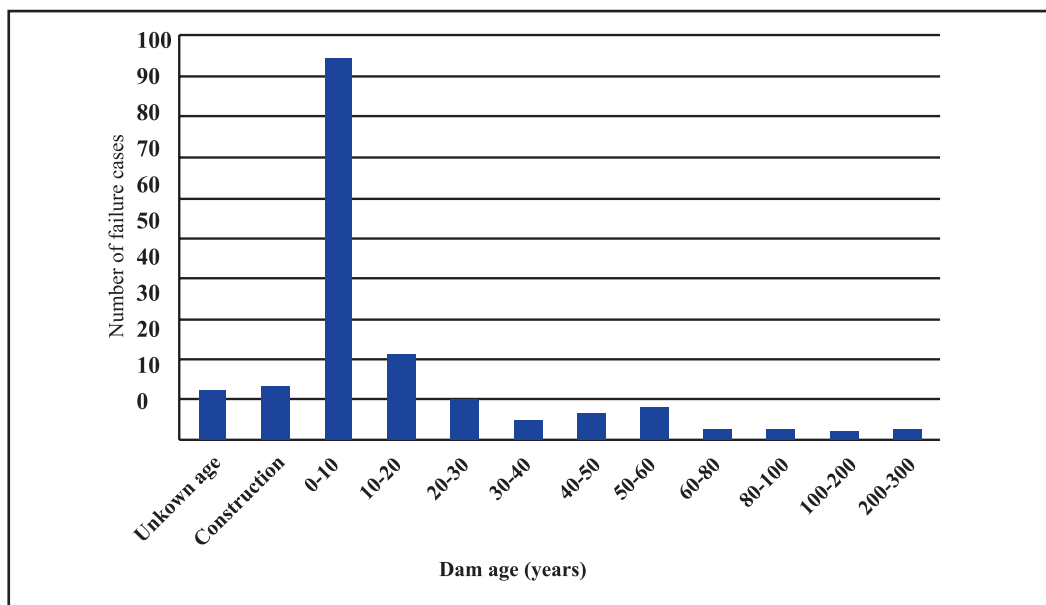


Fig. 1: Failures by age of failed dams adapted from (ICOLD, 1995)

One of the deadliest dam failure in the history of human civilization occurred in Zhumadian city, China in August 1975 with an estimated 171,000 deaths, huge losses to property and millions of people displaced (Sen 2018). The failure of Vajont Dam in year 1963 that was constructed on Vajont River near Monte Toc in Italy was an example of the consequences of the failure of engineers and geologists. Till date 36 incidences of dam failures have been recorded in India such as bursting of Gohna lake dam in Chamoli district Uttarakhand in 1894, cloudburst on 20th July 1970

in Alaknanda valley between Joshimath and Chamoli region of the state of Uttarakhand, Panshet dam failure in the Ambi River near Pune in 1961. The enactment of Disaster Management act in year 2005 helped in strengthening the capacity of country in management of various disasters for example the event of landslide blocked the course of river Phuktal in Kargil District, J&K on 31st December 2014.

Risk reduction measures with an objective to reduce the chances of dam failure and simultaneously improving the resilience of those impacted should be the priority to the need of all stakeholders. Frameworks, strategies, plans, procedures, initiatives must be flexible and adjustable according to the unique and dynamic environment created by each disaster. Fig. 2 highlights the different stages in risk reduction measures against dam failure.

Public outreach is one of the most crucial steps in dam risk reduction to create awareness among people about the risk to improve the preparedness, planning, mitigation, and recovery operations. The implementation of Public outreach must be directed to raise awareness regarding dam safety issues, dissipating information on the potential threats on downstream of a dam and necessary action to be taken during to mitigate the risks, capacity building in both upstream and downstream that could be impacted by the dam failure. Pre-event planning

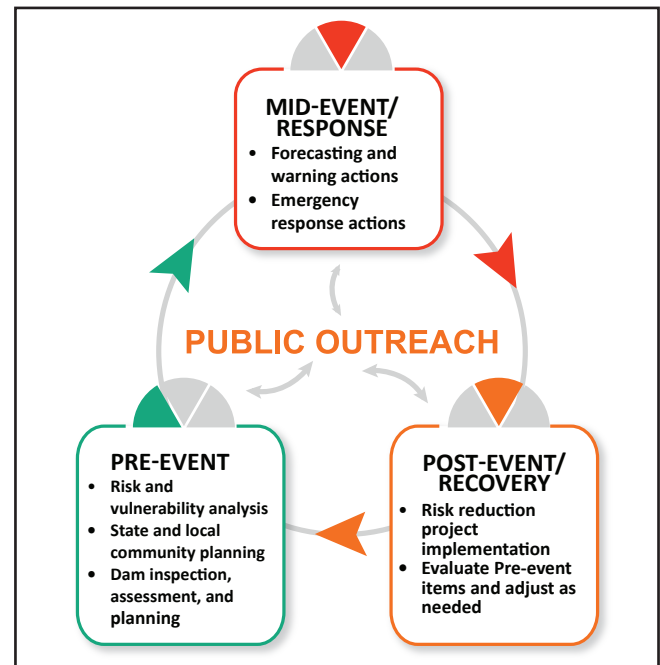


Fig. 2: Different stages in risk reduction measures in dam failure
(Source: FEMA, 2017)

is a crucial stage in risk reduction measures involving numerous effective actions such as assessment of risk, formulating appropriate plans, capital improvements and performing mitigation, implementation of dam-specific preparedness actions, conducting public outreach etc. Evaluation of the hazard, threats, and risk assessment of dam failure is the first basic step in pre-event planning followed by planning, mitigation, capital improvement, and dam-specific actions. Steps should be taken to constructs planning actions such as Emergency Action Plan (EAP) and to be implemented in a time of need. In mid-event actions, Pre-emergency warning systems play an important role in dissipating the information regarding the potential threats, risk and associated issues. As per the Pre-emergency warning systems alerts the state and central government that conditions in the jurisdiction need to be monitored. The warning system alerts the response team of unfolding issues that could rapidly become emergencies and provide time to take necessary steps to understand the scenario, monitor and encounter the disaster. In case of flash flood and other emergency warning systems, the residents, state and local emergency management personnel occurring in the jurisdiction should be informed beforehand to determine when it is necessary to initiate community warning systems and begin evacuations. In the post-event recovery event activities assistance by regional, national and international bodies such as search and rescue and other basic humanitarian needs of victims with an objective to bring the affected area back to some degree of normalcy.

Risk reduction measures need to be implemented with the support of local authorities and with an adequate public information and participation according to the risk perception level of the population at risk. Evacuation planning needs to be well prepared and with trained staff, and in almost all real cases, the alarm needs to be switched on as soon as a failure is predicted, in order to evacuate a large number of inhabitants.

Reference:

Sen N., 2018, *The Deadliest Dam Failures In History*. WorldAtlas, Jun. 26, 2018, worldatlas.com/articles/the-deadliest-dam-failures-in-history.html. (Accessed on 25.09.19)

Road Travelled: New Quests

Interestingly, even after a long journey of three decades in disaster management evolution, the first priority (SFDRR) is “Understanding disaster risk”. The “Stop Disaster” as slogan of UN-IDNDR faded away during the decade itself giving ways to softer aspects of humanitarian concerns. However, the HFA that led to strong legal-institutional framework reflected meagre attainments in “addressing underlying causes of vulnerability” (Priority 4). Hence, shift from ‘end-of-pipe’ – event’ based approach to ‘risk process’ based approach is the new call of prudent paradigm to disaster resilience.

The global understanding, however, needs to be woven into national and sub-national fabric of developmental strategies and actions, to enable integrated mainstreaming of SFDRR actions along with climate actions and SDGs. While we achieved good success in reducing human deaths, disaster related damage and loss has increased steadily and fast over the years. Questions of “how early is enabling” on early warning systems, and disaster risk consequences of environmental changes – climate change, land-use and landscape alteration, and natural resource degradation are shaking the minds. Redefining ‘structure’, ‘infrastructure’, ‘property’ and to include ‘natural’ ‘ecological’ and ‘social’ systems now attains high eligibility in the wake of improved understanding and recognitions.

Contextual Overhaul

While Asia-Pacific and Africa is on high pace of development especially in infrastructure, amenities, urban and industrial sectors, initiatives like ‘Collision of Disaster Resilient Infrastructure’, ‘Institutions Research Network on DRR’, are among top news in DRR policy forum. ecoDRR (Ecosystem Approach to DRR, as relative of Nature Based Solutions – NBS) is another key frontier for integrating sustainability concerns for turning ‘expenses’ into ‘investments’ which is another key priority of SFDRR. While the DM Act (2005) – an outcome of DM Bill (2002) in India passes over 15 years, it requires a serious review, not by the key functionaries themselves but, by unbiased thought makers. Once the innovations in DRR legal institutional framework in India now suffer with duplicity, overlapping, confusions and serious lack of integration, which needs to be addressed as a key priority.

Over the Post-HFA (or HFA-2, i.e. SFDRR), the great change is for bringing in a holistic approach to sustainable development incorporating DRR, climate resilience and inclusive development. Looking to the lessons of recent past disasters, e.g. Uttarakhand flood, Cyclone Phailin, Hudhud, Phani, Kashmir flood, Chennai flood, Marathwada water crisis Uttarakhand forest fires, Nepal earthquake, etc. the evolved approach would encompass following facets in DRR in India:

(i) Environmental Resilience

- (a) ecoDRR & Nature Based Solutions and Natural Resources
- (b) Climate adaptive planning into Sectoral Development
- (c) Sustainability Approach in Businesses

(ii) Engineering Systems Safety

- (a) Built structures
- (b) Industry
- (c) NBC (Nuclear biological chemical attacks)

(iii) Socio-cultural Resilience

- (a) Special Needs
- (b) Socio-cultural cohesion
- (c) Local resilience systems

Culture of Safety & Prevention

The purpose of ‘loss prevention’ has to be set as foremost aim, as put forth by the Prime Minister Shri Modi while he

inaugurated the 7th Asian Ministerial Conference. The PM's 10 Point Agenda on Disaster Risk Management serves as key strategy for sustainable and resilient inclusive development in the country. While India marches ahead with fellow nations enabling a Collision of Disaster Resilient Infrastructure (CDRI), there are fundamental questions needs to be addressed:

- (i) Demystifying infrastructure as real sense of 'infrastructure system' and to recognize the blend of 'ecological infrastructure' and 'social infrastructure' as key imperatives.
- (ii) Impact of developmental activities on 'environment /ecology' is often talked about but how 'environment' causes risk/impact on development, is critical to the new understanding of integrated climate and disaster resilience.
- (iii) Talks, like in India, pass over three decades, on financial instruments other than those of 'relief and compensation' and to address 'risk reduction' including 'insurance', the matter lacks real understanding that had led to failures in this context.
- (iv) 2nd National Platform for DRR had given clear recommendations and line of action towards implementing PM's Agenda 10 on DRM, which is in direct coherence with achieving SFDRR. Systematic monitoring and stock taking is crucial for ensuring actual implementation.

R & D and Capacity Gaps

Unlike 'environmental/ecological', 'S&T', 'medical', 'management' or 'geological' sciences, the disciplines of disaster management (be called as 'disasterology or disasteronomics, or else') since primarily being dealt by the Government led agencies, it suffers seriously with lack of 'debate of discussion/discourse' as difference of opinions, doubts and deviations are seldom allowed to record in such systems. The sub-discipline of disaster resilience or disaster management needs to be given open environment of research & development. Capacity gaps exists not only at 'doer' or 'monitor' level, but even more at 'top management' and 'planning' levels. There also needs a shift in 'reproductive narratives' towards 'innovations, research and ground lessons based' approaches.

Urgency of Institutional Revamping

National DM Act 2005 has given a tiered approach in disaster management, along with clear roles for National Disaster Management Authority (Policy making & Guidelines, Plan approvals, Response Supervision), National Institute of Disaster Management (Capacity Building – Training, Education, Research, Publications, Awareness, Policy Planning, etc.) and National Disaster Response Force (for ground level disaster response and relief). However, over the years, boundaries got blurred and confusions and overlapping prevailed to an extent of duplicacy in objectives and efforts. Roles and responsibilities need to be re-visited in the light of Dr. PK Mishra Committee Report on the review of DM Act 2005. Besides this, NIDM has to be transformed into multi-campus organization in lines with IITs/IIMs/AIIMs. It is also highly warranted call for a dedicated full-fledged 'Indian Institute of Sustainability, Safety and Resilience' as a Central University level organization located centrally, with organic linkages with UGC, AICTE, Ministry of Human Resource Development, NDMA, NIDM, NDRF and other organizations working in the area.

Operational Integration: The Real Call

Prime Minister's Agenda 10, under its first point calls for each sector to imbibe the principles of disaster risk management. This requires each Ministry or Department to develop and implement a Disaster Management Plan. As part of the roadmap, institutions and academies affiliated with the Sector need to integrate the efforts towards climate actions, environment, SDGs and inclusive growth with the mandates under SFDRR, as part of compliance to DM Act 2005. 'Mitigation' needs to be 'demystified' in real sense of 'blend of sustainable – safe and resilient development' that would 'help enable the real 'culture of safety and prevention (CUSP)'. An audit mechanism for achievements against the core mandates of organizations need to be established not as monitoring tools but for support system to guide the continual improvement. A national disaster resilient research system may also be thought involving relevant Ministries such as environment forests climate change, earth science, water resources, human resource development, health, agriculture, urban, rural, space, science & technology, etc.

- Dr. Amir Ali Khan

The Asia Pacific region is one of the most disaster prone regions of the world. This region is highly prone to hazards of geological and hydro-meteorological origin besides other types of hazards. The region is infamous for high population density, high levels of poverty and inadequate developmental practices, which often converts hazards into disasters. According to the Asia-Pacific Disaster Report-2019, during the year 2018, almost half of the 281 natural disaster events worldwide occurred in Asia and the Pacific and the region witnessed eight of the ten deadliest natural disasters events.

Due to concerted efforts of the national governments, the death due to natural disasters has reduced considerably. However, disaster events induced economic losses and impact in terms of affected people is still a serious challenge to overcome.

Affected - People who are affected, either directly or indirectly, by a hazardous event. Directly affected are those who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets. Indirectly affected are people who have suffered consequences, other than or in addition to direct effects, over time, due to disruption or changes in economy, critical infrastructure, basic services, commerce or work, or social, health and psychological consequences.

Source: UNDRR/UNISDR

During last few years, India has been witnessing greater impact of water and climate related disasters, which are posing a greater challenge at national level. During the year 2018, India had witnessed a series of floods and cyclones. The states of Assam, Gujarat, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tripura, Uttar Pradesh and West Bengal had witnessed severe flooding. Among all flood disasters, Kerala flood was a disaster of unprecedented nature impacting the entire state and resulting in loss of about 450 human lives. Besides, the year also witnessed four cyclonic storms post monsoon seasons which is quite unusual.

Post disaster emergency management pose serious challenges to communication (specially for information dissemination through all means of communication like electronic, print and social media); evacuation (for safer locations); search and rescue of survivors (requiring specialised equipment along with the trained manpower); putting the evacuees into the appropriate shelters (till return of normalcy); making provisions for relief supplies for the survivors (food, water, sanitation, medical etc.); debris removal and cleanliness of affected areas for attaining normalcy; and ensuring safe return of evacuees to their respective places.

Cyclonic Storms of 2018

1. Cyclone Daye (September 19, 2018) over Andhra Odisha coast
2. Cyclone Titli (October 6, 2018) over Odisha coast
3. Cyclone Gaja (November 5, 2018) Tamil Nadu and Puducherry coast
4. Cyclone Phetai (December 13, 2018) coastal areas of Andhra Pradesh and Odisha

Source: NIDM/India Disaster report -2018 (draft)

Disaster events result not only in physical losses to the local communities but also the psycho-social impact. There are several documented events where maximum losses have been borne by the local communities. It may, thus, be concluded that disasters impact on local communalities is immense. It is also a well-known fact that the local communities are the first responders to any disaster event. They are in the best position to provide assistance to the affected people. The impact of disasters can be reduced by providing necessary skills in search, rescue and relief to the local communities in addition to the formal response agencies like Fire and Emergency Services, SDRF and NDRF etc.

Immediately, after a disaster, there is a need for restoration of emergency services like emergency health care, WASH, telecommunication, electricity etc. and making provisions for relief to the affected communities. All such services

need to be taken care at pre-disaster stage only by strengthening emergency services and by developing a trained cadre of volunteers at local levels. Organising joint mock drills, by involving local volunteers with the formal emergency response agencies, may pave the way for effective response planning. In addition, developing a disaster management plan at all levels with well-defined SOPs of all stakeholders may lead to an effective rescue and relief. Thus, investments have to be made in effective preparedness for efficient response.

Disaster Reporting and the Role of Media: Opportunities and Challenges

- Chandrani Bandyopadhyay

Communication is one of the three main pillars of risk management – risk assessment and mitigation being the other two. The Hyogo Framework for Action (2005-15) and the Sendai Framework for Disaster Risk Reduction (2015-30) place community and government at the centre of all DRR activities. Media forms the connecting element between the two, thus forming a critical fulcrum in the risk communication process. Risk communication entails providing necessary information to the vulnerable community about probable hazards and potential risks. It is important that the risk is communicated through an interactive approach, which acknowledges the needs and concerns of the vulnerable group (Wray et al, 2006). The Sendai Framework for DRR (SFDRR) articulated the role of the media as “an active and inclusive role at the local, national, regional and global levels in contributing to the raising of public awareness and understanding and disseminate accurate and non-sensitive disaster risk, hazard and disaster information, including on small-scale disasters, in a transparent, easy-to-understand and accessible manner, in close cooperation with national authorities; adopt specific disaster risk reduction communications policies; support, as appropriate, early warning systems and life-saving protective measures; and stimulate a culture of prevention and strong community involvement in sustained public education campaigns and public consultations at all levels of society, in accordance with national practices” (SFDRR, 2015, 36 (d)). The SFDRR also stressed upon the use of emerging mediums like social media, mobile telephony, big data along with traditional media for risk communication (ibid, 25 c).

The role of media as a provider of information that often empowers people to effect positive change is widely acknowledged. The overarching power of the media to influence public opinion, promote necessary actions from stakeholders makes it a crucial tool in managing disaster risks and empowering the vulnerable communities to take positive action. Increasing reach of the media through print and electronic networks as well as social media has been crucial in changing the face of the world in many respects.

During emergencies, the need for “right information at the right time” underscores the critical role played by the media. That media provides the public with information about disaster events and provides designated responders with on-site information are a win-win situation for both.

Disaster reporting forms a critical tool in effective response. During disaster events, the media plays a crucial role in collection and dissemination of information and facilitating timely and effective action. Media plays a vital role in educating the public about disasters, playing a significant role in creating awareness and consolidating opinion. This eventually creates a global community, connected by shared information, ideas and opinions. Not only in the aftermath but also in preparedness, effective use of media contributes in early warning, disseminating information to the affected areas, alerting local population, government officials and relief organizations and also garners public opinion on disaster preparedness and response. On the other hand, the need to continually share information often leads to unnecessary sensationalisation of the event, thereby creating panic or shifting focus from the core issues and challenges. The responsibility of the media therefore lies in disseminating news in an impartial manner, helping to focus on core issues for better management of disaster risks.

Disaster reporting is divided into the initial breaking news period and the aftermath period, which covers the entire response and early recovery phase. While the initial breaking news period focuses on the magnitude and impact of the event including estimated losses, the aftermath period offers detailed reporting opportunities including the response and restoration activities undertaken. This phase can be designated as the most critical because coordination between the government/designated responders and media can ensure need-based response to people who need it the most. Live action stories bring the event to the viewers’ or readers’ proximity, creating scope for humanitarian relief and

inclusive response. It also helps to bring about support for the responders engaged in search, rescue, evacuation and relief, in challenging situations and at great risk to their own lives.

While the media is responsible for reporting on disasters, appropriate and accurate information sources need to be made available to them. Media can disseminate accurate information only if such information is provided to them; otherwise inaccurate, irrelevant information may be used leading to needless sensationalism. The government agencies, scientific and technological organizations which generate data and the media need to work in partnership, to provide accurate information in a user-friendly format in order to reach the maximum number of people in the shortest possible time. This two-way partnership will facilitate accurate information to quickly reach the target group, cutting out the sensationalism. A SWOT Analysis of the challenges and opportunities of the media during disasters can be described as follows:

S

- Outreach and reader/viewer loyalty
- Rapid reporting of event
- Pragmatic viewpoint from affected communities and responders

T

- One-sided reporting, lack of balance
- Creates incorrect perception of event
- Relief and response may get confined within the areas visible in media and photo-opportunities

W

- Sensationalization of event
- Insensitive reporting
- Selective reporting

O

- Information disseminators
- Identify and communicate response gaps
- Communicate lessons learnt and good practices

The emergence of another form of media viz. the social media has become very prominent in recent times, often surpassing the reach of traditional media. The all-encompassing reach and influence of social media can be used to augment the traditional print and electronic media, but also suffers from pitfalls in terms of professionalism and ethical reporting. There is need to use all the mediums in partnership with all stakeholders for effective and efficient disaster response.

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Engendering Response and Relief

- *Dr. Ajinder Walia*

It has been well accepted by the global community that our disaster planning, management and capacity building initiatives tend to overlook the gendered dimensions of disasters. Gender is not a simply socioeconomic characteristic which exists in the in the background of our response and relief mechanism in a post disaster scenario but it is a fundamental concept which can determine the efficacy of our response to any disaster. Neglecting this dimension can lead to lack of addressal of vital needs and priorities.

The International Search and Rescue Advisory Group (INSARAG) has listed gender restrictions as one of the sensitive issues which has to be considered while carrying out all search and rescue operations. There are number of studies globally, which focus upon the issues of women during search and rescue (SAR) operations. The gender sensitive issues in response include non willingness of women to evacuate without taking permission and guidance from their husbands or elders, experiencing restrictions on their outdoor and public movements, and, cultural norms prohibiting them for touching other men, cultural norms such a purdah system put some women at special risk in disasters and their non inclusion in from official emergency response systems. The issues can affect the mortality rate of women in disasters. The studies bring out the need for representation and inclusion of women in response agencies for a gender sensitive approach towards disaster management. The National Policy, 2009 (enclosed) states that the State Disaster Response Force (SDRF) “will include women members for looking after the needs of women and children”. However, inclusion of women in National Disaster Response Force (NDRF) is not outlined in the Policy document.

Relief is considered to be an important phase in disaster management cycle which aims at meeting the immediate survival needs of the affected community on a temporary basis. The different forms of physical, mental and economic aid provided to the affected community needs to viewed through a through a gender perspective and the measures that can be undertaken to make it more sensitive and effective for the affected women. Whenever a disaster strikes, generally temporary shelters are put into place and several survivors are forced to live together in relief camps. However, in the process, the needs of pregnant, lactating and menstruating women are not adequately considered. The issues of sanitation, specific clothing and toiletries are not generally seen as vital supplies to be provided to women survivors. From an economic perspective, most of the women in India work in an unorganized sector and hence their economic losses are not accounted for in the structured damage assessment mechanisms.

Women in India, are usually entrusted with care giving responsibilities and have “to do more with less” in a disaster scenario, and hence they bear immense stress during that phase. The volunteers who provide psychosocial counselling to the affected community do not generally have adequate representation of women, as a result of which, there may be a general lack of understanding and sensitivity towards women related issues. Moreover, many women may become victims of violence as men try to cope up with frustrations and feelings of loss of power and livelihood. The affected women may feel more comfortable talking and sharing their feelings and grief with other women counterparts. Relief and Response mechanisms, as are currently practiced, need to be reconceptualised to ensure its effectiveness across gender. Mainstreaming gender in response and relief allows for a more accurate understanding of the post disaster scenario ensuring that the disaster survivors are acknowledged, their needs and capacities are taken into account, thereby, facilitating the design of more appropriate and effective disaster relief and response mechanisms.

Panchayati Raj Institutions: Role in Disaster Response

- Shekher Chaturvedi

Panchayati Raj Institutions (PRIs) as the face of Governance at the local level have their roles cut out during every phase of disaster be it preparedness or response. Acting as a bridge between Government and the community, PRIs can prepare the community to respond to the concerned disasters and in turn reduce the response time.

First and the foremost responsibility of PRIs in terms of response is to assist the state government to reach out to the affected people. Being amongst the community, PRI members must gear themselves to become the first responders. They know the terrain, people and their needs, thus can become the convergence point of all external help during emergency.

Role as a first responder

PRI members can assist the affected people to reach the relief camp or place of safety. The route to safer place/ relief camp must be marked by PRI members and utilized during the evacuation of affected people.

PRI members can requisition the village disaster management teams to meet the crisis. PRI members must facilitate these teams with all possible help in terms of emergency equipments, light for night operations, food for sustenance and medical help if needed.

PRI members can help the external responders with exact location of the emergency and extend all possible help to them in search and rescue activities.

Role as relief distributor

PRI members, as they know every members of their locality, must ensure that every affected people reaches the relief camp and relief is provided to them. They must also ensure the head count of children every day so that trafficking can be avoided. They can ensure that people including women and children in the camp are engaged in some activity best suited to them.

Role as damage assessor

PRI members can get themselves engaged in damage and loss assessment post disaster so that a holistic assessment can be done. They can also assist the district and state administration to prioritize the distribution of relief fund to different sectors for recovery.

Role in other support

PRI members can also facilitate the corporate sector in providing support to their area under Corporate Social Responsibility (CSR). They can also facilitate in institutionalization of risk insurance cover to every household in their area.

Unfolding Relief Distribution

- Dr. Sushma Guleria

Our country has integrated administrative machinery for disaster management at National, State, District and upto Sub-District levels. The basic responsibility for undertaking rescue, relief and recovery measures in the event of any disaster is that of the concerned State Governments. The role of the Central Government is supportive, in terms of physical and financial resources and complementary measures in sectors which are of prime importance post any disaster. The country has very well defined Relief Manuals and Codes available for undertaking emergency operations and management.

The National Disaster Management Authority (NDMA) formulates appropriate policies and guidelines for effective and synergized national disaster response and relief. The Disaster Management Act (Section 12) mandates NDMA to recommend guidelines for minimum standards of relief with primary emphasis on minimum standards for basic amenities in relief camps and special provisions for widows and orphans along with specifications for ex-gratia etc. These are commendable. Yet, with heterogenic dimensions being manifested in cultures across various communities in India, unbiased relief distribution becomes a challenge. Especially in rural settings and otherwise, the district revenue departments with facilitation by Panchayat offices, Sarpanchs' and Block Development Officers (BDOs) disburse the relief supplies. This mostly generates a cavity in the form of partial and subjective relief beneficiary identifications which may get amplified due to lack of proper validation of such assessments. Examples from various disasters in the recent past have clearly highlighted how caste, class, ethnicity divide influence relief distributions in India. There may be guidelines available for specific sectors regarding Schemes run by State or Central Governments; nonetheless, there emerges a need to provide clear set of umbrella guidelines from the highest apex authority which can be used by States as guiding light.

The Minimum Standards for Relief guidelines must acknowledge and address this lacuna. There must be laid down principles for distribution of relief materials with focus on specified conditions for relief distribution amongst those affected and for selection of beneficiaries. Needless to say, State and District Disaster Management Authorities must be non-discriminatory and must ensure that relief supplies are appropriately targeted for different groups or categories of community members in a balanced manner. Beneficiary identification can be initiated using established community registers in order of priority amongst the vulnerable section. List of identified beneficiaries should be submitted for validation/ verification before commencement of distribution. This way, for example, relief supplies can be targeted logically and need based towards those who are assessed to be vulnerable with regard to negative impacts of the

disaster. Relief food supply can be categorized too such as i) food-for-work schemes can be targeted (a defined higher percentage of relief food) towards able-bodied; ii) food-for-free (minimal percentage of relief food) can be disbursed amongst the identified vulnerable sections in the affected community; iii) food-for-cash can be made available to those with income through food distribution points etc.

It has been observed conspicuously from many disasters that many a times the affected communities are ignorant about the rights and benefits meant for their betterment under various schemes launched by governments. This ignorance may also lead to discrimination amongst relief beneficiaries. To cater to this need, State/UTs can carry out Information, Education and Communication (IEC) activities amongst their populations to raise awareness about beneficiary entitlements, benefit covers, empanelled healthcare facilities and process to avail other services under relief guidelines etc. This can also include sensitizing communities on critical concerns which emerge during post-disaster response and relief phases, making available beneficiary family list at Panchayat office, visit of ASHA workers to educate them about various schemes implanted by government departments for mass benefits, use of Mass media to communicate the same, etc. among other activities. As is being encourage under the Pradhan Mantri Arogya Yojna, IEC activities are designed to aid and provide information about Beneficiary identification Contact Points – Infrastructure and Locations which any affected community member is easily able to locate and even find out if they are covered under the given specific scheme. Such concerns must also find a place in Relief Guidelines itself so that stringent implementation is adhered by the respective States.

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World Humanitarian Day

- Dr. Ritu Raj

World Humanitarian Day (WHD) is observed annually on August 19. The purpose of the World Humanitarian Day is to gather support for the people affected by the crises across the globe, and also to appreciate the efforts of the humanitarian workers who risk, and sometimes lose, their lives in humanitarian services¹. According to United Nations Association of Australia, more than 130 million people all over the world are at present in crisis, either through war or natural disasters and are in need of humanitarian aid².

2019, World Humanitarian Day, was dedicated to the work of those unknown women humanitarians who have been working in the field for the survival of affected communities in some of the most difficult terrains.

World Humanitarian Day was initially introduced by United Nations General Assembly in the year 2008 and was for the first time officially observed in the year 2009. The date of 19th August was selected as on the same date in 2003, a terrorist attack at the United Nations headquarters in Baghdad led to the killing of 22 people including the United Nations High Commissioner for Human Rights, Sergio Vieira de Mello³. Every year since then, the disaster management community has been conducting the global campaigns to commemorate WHD.

Four basic humanitarian principles: humanity, impartiality, neutrality, and independence guide all humanitarians across the world. At the same time it is also mentioned here that while working for the wellbeing of the victims, humanitarian workers often face significant threat to their life. According to the studies, 2018 was the second worst year on record for attacks against humanitarian workers, and it was national aid workers who faced the majority of this

violence with 399 aid workers affected by major violence in 221 separate attacks⁴. Mental wellbeing of humanitarian workers is also an unconsidered issue as stress and trauma that can occur from humanitarian work poses additional challenge in already abnormal situation. It is the need of the hour that deliberate attacks against humanitarian workers must be addressed and all stakeholders must work towards the safest possible environment for all humanitarians. Saving the life of humanitarian workers is not the responsibility of any particular country. It is the commitment that all nations, communities, sharing truly universal values must make.

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Response and Relief

- **Dr. A D Kaushik, Sr. Faculty**

- **Ms. Shilky, Young Professional**

Response and Relief are the important stages and occur in the phases of during and Post-Disaster of a Disaster Management Cycle. Response is how we act after the disaster has occurred. This phase will include all required steps to provide instant help to the affected people by taking steps to search rescue and evacuate them. Primarily the locals of the affected area will respond to the Disaster. The primary objective of disaster response is to save life, protect property, the environment and respond to the fundamental requirements of human humans and others following the disaster. Such assistance can range from particular but restricted help, such as helping refugees with transportation, temporary shelter, medical aid, drinking water and food, to semi-permanent settlement in camps and other places. Initial repairs to damaged infrastructure may also be involved. The reaction stage focuses on meeting people's fundamental requirements until more lasting and sustainable solutions can be discovered. Emergency response is that the most visible as also the most essential phase of disaster management. No matter the contributing factors, the singular aim of all the response operations should be to avoid wasting as several lives as possible and to limit the harm in terms of loss of life and property, infrastructure and surroundings, besides managing the wide range of adverse impact on the affected communities within the aftermath of a disaster. Rescuing from immediate danger and stabilizing survivors' physical and emotional condition are the primary goals of disaster response / relief, which go hand in hand with recovering the dead and restoring essential services such as water and power. Coordinated multi-agency reaction is essential to this phase of disaster management to decrease the effect of a disaster and its long-term outcomes, including relief operations:

- Search & Rescue
- Relocation
- Provision Food and Water
- Provision Emergency Health Care
- Prevention of Disease and Disability
- Repairing Vital Services e.g. Telecommunications, Transport
- Provision Temporary Shelter

Most disasters are managed by States and Districts at their level. The Center plays a supporting role and assists them when the impact of a disaster exceeds the capacity of the District and the State. Humanitarian organizations in this stage of the cycle of disaster management are often heavily present. Response activities are generally conducted under very challenging and sometimes traumatic circumstances, with heavy demands on personnel, equipment and limited logistical resources. Loss of communications, damage to key facilities such as power supplies, and unavailability of key personnel may be crippling for the response initiatives as it happened in Srinagar floods of 2014.



NDRF saving lives and beyond

The National Disaster Management Authority (NDMA) is responsible for setting disaster management policies, plans and guidelines to ensure timely and efficient disaster response. Being an apex body it is chaired by the Prime Minister of India. An effective response however, comes from a good preparedness. The National Institute of Disaster Management (NIDM), which is a premier Institute for training and research on disaster risk mitigation and management in India, plays an important role in preparing our nation for any disaster. While, National Disaster Response Force (NDRF) is specialized force for the response and relief in Disaster Management. According to Chapter VIII of DM Act -2005 Sec 44 (i): NDRF: a 'Specialist Force' to respond to disasters/ threatening disaster. NDRF personnel are specially trained to face any kind of disasters and work in the harsh conditions of calamities. Same role is played by SDRF at state level. The Disaster response plans should be specific to the disaster, specific to the region and tailored to the particular requirements of the groups possibly impacted. The response should be well integrated into the national policy on disaster management, ensure the necessary preparedness plans and guide capacity-building initiatives, including training and development of specialist's skills to response and for that NDMA, NIDM and NDRF are doing a great job in our country.

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Response Strategy Needs Policy Level Changes

- **Raka Kumar**

The increasing seismic activity in the Indian subcontinent and worldwide continuously hint that a large scale earthquake may strike in the region. To what degree is India prepared for a large intensity earthquake in an urban environment? Would Delhi, Mumbai or any other metropolitan city be prepared and equipped enough to deal with a Kathmandu (2015) like catastrophe? The recent floods in Kerala, Uttarakhand, Maharashtra, Bihar and other parts of the country have given indications that states are still not equipped to mitigate and efficiently respond to hydro-meteorological

disasters (floods and cyclones) where early warning is available if not before weeks, at least days in advance. As per the 2005 Disaster Management Act (DM), disaster management is a State subject; hence States need to prepare themselves for both natural and man-made disasters. In this sense, the Central Government is supposed to interfere and respond to disasters only when they fall beyond coping capabilities of the State Government and receive requests for Central assistance.

The ideals of policy makers enshrined in the 2005 DM Act resemble a visionary shift from a relief-centric approach to a proactive approach for disaster management. Embodied this is the Vision statement of National Disaster Management Authority, Govt. of India (NDMA) states: "To build a safer and disaster resilient India by a holistic, pro-active, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation". However, 13 years after enactment of the Act and establishment of NDMA, how far has the Indian Disaster Management system truly progressed? Are they really proactive, and do they consistently apply a holistic and technology driven approach for prevention, preparedness and mitigation of disasters?

The important point for policy makers to ponder upon is whether India is using a holistic, pro-active and technology driven approach to prepare better and mitigate disasters. Floods and/or droughts in India are a yearly occurrence, with some States suffering perennial flooding in monsoon season. The riddle goes as this- When the subcontinent Monsoon is strong, floods are bound to occur; however, with a weak Monsoon, droughts are unavoidable. With current technology, these weather related hydro-meteorological disasters are easily predictable and can be mitigated if the disaster management system at State level starts using a holistic, pro-active and technology driven approach. Yet, our preparedness and response mechanism is still response-centric and disaster specific, not pro-active and holistic.

Enactment of the 2005 DM Act, creation of the NDMA and especially raising, modernizing and equipping of National Disaster Response Force (NDRF) have been path-breaking initiatives in the history of Disaster Management in India. The NDRF was raised and trained as a specialized, stand-alone Force specifically to respond to disasters of Level 3 and above. Under the 3-tier federal disaster management and response system States were advised to raise their own State Disaster Response Force (SDRF), on the lines of NDRF, to handle and respond to Level 1 & 2 disasters. Some of the States in India that have established their State Disaster Management Authorities (SDMA) have raised SDRF and excelled, but a majority of Indian States are still in the nascent phase. The 3rd and last-mile connectivity District Disaster Management Authorities (DDMAs) are still a dream to be achieved. NDRF with its 12 Battalions located in 12 different parts of the country, based on a vulnerability profile of the region, is capable and efficient enough to handle all natural and man-made disasters within the lowest possible deployment time, and the saviours (NDRF) have achieved great recognition for specialized response operations within India and abroad. Yet, the presence of NDRF and its ease of availability to States is one of the prime reasons that States are not serious enough to raise their own SDRF. Instead of responding to Level 3 disasters specifically, NDRF, since its creation, has handled numerous Level 1 & 2 disasters, as small as bore-well rescues and drowning cases, on requisition of State Governments.

In present, it stands that India is response centric with disaster-specific approach orientation; thus, are we prepared for something as grave as a devastating earthquake? With their inability to predict, earthquakes (including tsunamis) are the most deadly form of natural disaster, accounting for 55% of the disaster deaths over the 20 year period between 1994 and 2013, claiming nearly 750,000 lives (CRED, 2018). During the last decade alone, the world has witnessed several major earthquakes claiming a heavy toll in human lives and economic damages, with Pakistan, Indonesia, Haiti, New-Zealand, Japan, Nepal, Iran and Italy just to acknowledge a few.

As the majority of earthquake injuries result from structural collapse (WHO, 2016), releasing trapped individuals from underneath the rubble during immediate response is under the auspices of Urban Search and Rescue (USAR) teams. Most often, the local USAR capacity is overwhelmed with international USAR teams swooping in to help aid affected areas. These teams are comprised of highly skilled professionals, equipped with rescue dogs and advanced machinery, technology and know-how for extricating the trapped. Most of these teams are subjected to classification, accreditation and rigorous standards set by the United Nations' (UN) International Search and Rescue Advisory Group (INSARAG) in joint collaboration with the UN's Office for the Coordination of Humanitarian Affairs (OCHA) and The United Nations Disaster Assessment and Coordination (UNDAC). Though NDRF was amid the process of INSARAG classification starting in 2009-10 onwards, the occurrence of intense bureaucratic and policy roadblocks have resulted in an NDRF that still lacks INSARAG certification.

Yet, while highly trained teams are the most prepared for immediate response, they are often restricted by geographical and temporal constraints. Thus, the majority of earthquake victims are most often rescued by the individuals, most commonly family members, neighbors, friends, or bystanders. Accumulated data from a number of case studies highlights that untrained individuals are responsible for upwards of 50–95% of rescues within the first 24 to 48 hours. These individuals, which have no formal training, use whatever they can find to support their efforts from metal rods to car jacks and more (McGuigan et al, 2002; Uscher-Pines, 2012; Peleg, 2015).

With this in mind, the more of our general public that can be educated with basic Light Search and Rescue (LSR) skills, the better of society will be. Empowering members of the public and training them to assume basic life-saving skills during emergencies can considerably increase the availability and accessibility of rapid care for casualties and, consequently, upsurge survivability. The model for such is Israel, which, in the beginning of the 2017-2018 school year, began training all 10th graders in Light Search and Rescue. The Israeli Government believes this move will generate a pool of more than 100,000 people capable of performing life-saving tasks in case of emergency annually (Peleg et al, 2018). A true example of society coming together to save lives that India could benefit from if it followed suit.

Fortunately, after the 2001 Gujarat earthquake, India has yet to experience a major earthquake in any urban area, except Sikkim earthquake 2011 where the rescue efforts of specialized first responders were far from appreciated. In light of the plethora of buildings that are far from following safety codes, a major earthquake in any urban area or mega city is likely to be a devastating event resulting in grave losses in both life and property. Policy makers will be forced to rethink the disaster management mechanism practiced in India over the last 13 years, and better to do so before disaster strikes and not in the wake of its devastating midst. We most certainly do not need wait for a catastrophe to occur to make beneficial changes. Best practices worldwide that provide a holistic, proactive, technology driven and sustainable development strategy towards disaster management are available; all we have to do is start enforcing them. When there's a will, there's a way, and the will to save lives should run deep through our societal fabric in both policy and action.

Panchayat Disaster Response Force (PDRF): Need of the Hour

- Dr. I. Balu

Disaster management framework of the country, effective response mechanism and relief at all levels acquire significant importance. This has been duly reflected in the Disaster Management Act 2005 by incorporating an exclusive chapter on 'Response' and mandating the constitution of National Disaster Response Force (NDRF) as a specialist force to deal with all types of disasters both natural and manmade. More than a decade NDRF is providing response to all types' calamities. Recently the intensity and frequency of disasters were increasing so it is a time to think about Decentralization of Disaster Response Force.

During Cyclone Gaja 14-year-old girl Vijaya, Anaikkaadu village near Pattukottai in Tanjore district, Tamil Nadu was kept isolated in a small hut as she had hit puberty and according to the custom, had to stay there till all the rituals could be completed. When the parents had early warning they were failed to rescue their girl because of severe cyclone. However, tragedy struck on November 16 as Cyclone Gaja crossed Vedaranyam coast impacting Pattukkottai. In the wee hours of the morning, a coconut tree fell on the hut and hit the girl on the chest and she died. This incident is evident that top to bottom model of disaster response, rescue and relief has failed to provide prompt and timely response.

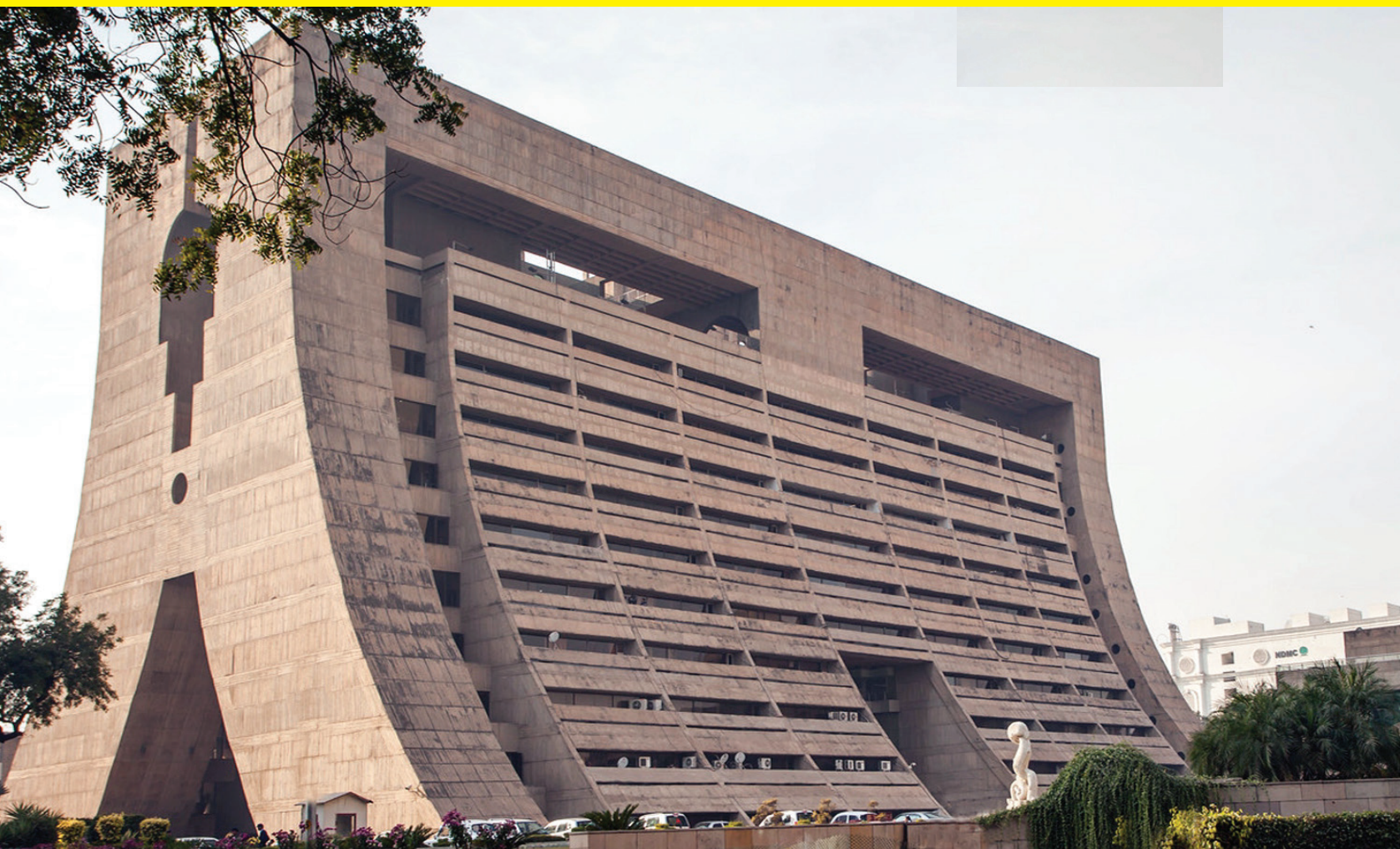
However, there needs to be an involvement of the locals during the response, rescue and relief operations and also in the process of recovery. It is now the right time to decentralize disaster response. It is time to empower and equip gram panchayats (village governments) and municipals for a first-hand disaster response, rescue and relief operations. There should be a separate 'Panchayat Disaster Response Force' (PDRF) to ensure prompt and timely response to the affected people. Involving local people in disaster response through PDRF will address the issue of language, identifying and reaching the severely affected area and ensure timely response. Further to strengthen the decentralized disaster response, National Service Scheme (NSS), National Cadet Corps (NCC), Nehru Yuvakendra Sangadan and Youth clubs in village can be trained for disaster response.

Proposed Training Programmes to be Organize in Month of October-December, 2019

S.No.	Name of Program	Venue	Dates	Faculty
1.	Orientation Training Programme on CCDRR	ILDM, Kerala	03-04 October 2019	Kumar Raka & Balu I.
2.	Village Disaster Management Plan	GIPARD, Goa	03-05 October 2019	Ajinder Walia
3.	Hospital Disaster Management Plan	HP SDMA	09-11 October 2019	Amir Ali Khan, Sushma Guleria
4.	Training Programme on Disaster Management for officials of Indian Railways	Indian Railways Institute of Disaster Management, Bengaluru	14-16 October 2019	Santosh Kumar, Shekher Chaturvedi
5.	Flood Risk Management & Water Sector DRR	NIH, Roorkee	14-18 October 2019	A.D. Kaushik, Anil K. Gupta
6.	CAP-RES: Green Growth Strategies and Disaster Risk Reduction	NIDM-Southern Campus (at ISEC Bangalore)	15-17 October 2019	Sushma Guleria, Anil K. Gupta
7.	Training Programme on Museum Safety & DRR	NMI, New Delhi	16-18 October 2019	Chandrani Bandyopadhyay
8.	Training Programme on Disaster Management	MGSIPA, Chandigarh	21-23 October 2019	Shekher Chaturvedi
9.	Post Disaster Needs Assessment (PDNA) & Long Term Recovery	ATI Nainital, Uttarakhand	22-24 October 2019	Santosh Kumar
10.	School Safety Disaster Management Plan	UPSDMA, Lucknow	22-24 October 2019	Ritu Raj
11.	School Safety Plan and Safety Audits	ATI, Mysuru	23-25 October 2019	Amir Ali Khan
12.	Forest Fire Disaster Risk Management	HP, SDMA	23-25 October 2019	A.D. Kaushik, Anil K. Gupta
13.	Orientation Training Programme on CCDRR	GIPARD, Goa	23-24 October 2019 (Tentatively)	Balu I.

S.No.	Name of Program	Venue	Dates	Faculty
14.	Inclusive DDR & Governance	NIDM, Southern Campus	28 Oct-1 Nov 2019	Santosh Kumar
15.	Training Workshop on Broadcast Management during Disaster	NABM-P, Radio Colony, Kingsway, New Delhi	04-06 November 2019	Surya Parkash
16.	Forest Fire Risk Management & Response	FRI, Dehradun	04-08 November 2019	A.D. Kaushik, Anil K. Gupta
17.	Community Based Disaster Risk Management	APHRDI, Vishakhapatnam	05-07 November 2019	Chandrani Bandyopadhyay
18.	Post Disaster Reconstruction, Rehabilitation, and Recovery	ATI, J&K	06-08 November 2019	Amir Ali Khan
19.	DRR for First Responders	SSDMA, Sikkim	06-08 November 2019	Shekher Chaturvedi
20.	Intergrating DRR into Rural Development Policies and Programmes and PRI Sector	HIPA, Shimla	06-08 November 2019	Sushma Guleria
21.	Post Disaster Needs Assessment (PDNA) & Long Term Recovery	HCM-RIPA	13-15 November 2019	Santosh Kumar, Shekher Chaturvedi
22.	Community Resilience in Urban Environment	NIDM, New Delhi	13-15 November 2019	Surya Parkash, Chandrani Bandyopadhyay
23.	Faculty Development programme on CCDRR	Dr. MCR HRDI Telangana	17-18 November 2019 (Tentatively)	Balu I. & Kumar Raka
24.	DRR for First Responders	MCRHRDI, Hyderabad	18-20 November 2019	Shekher Chaturvedi
25.	IRS: Operating Section Chief	NIDM, New Delhi	18-20 November 2019	Santosh Kumar, Shekher Chaturvedi
26.	Post Disaster Needs Assessment (PDNA) & Long Term Recovery	Bihar, Patna	20-22 November 2019	Santosh Kumar
27.	Psychosocial Care in DM	DDMA, New Delhi	20-22 November 2019	Ajinder Walia
28.	Media & Communication	DMI Bhopal	20-22 November 2019	Chandrani Bandyopadhyay

S.No.	Name of Program	Venue	Dates	Faculty
29.	School Safety Plan and Safety Audits	ATI, Telangana	20-22 November 2019	Amir Ali Khan
30.	Supply Chain Management	NIDM, New Delhi	26-28 November 2019	Santosh Kumar, Chandrani Bandyopadhyay
31.	Management of Crowd at Large Congregation	ILDM, Kerala	27-29 November 2019	Shekher Chaturvedi
32.	Post Disaster Needs Assessment (PDNA) & Long Term Recovery	ASDMA, Assam	04-06 December 2019	Santosh Kumar
33.	Integration of DRR and CCA into Rural Development	NIRD, Hyderabad (South Campus)	04-06 December 2019	Sushma Guleria
34.	Floods and Droughts in Changing Climate	NIH, Roorkee	04-06 December 2019	Surya Parkash
35.	Mainstreaming DRR in ULB Sector	SIUD, Mysuru Karnataka	04-06 December 2019	Chandrani Bandyopadhyay
36.	Flood & Droughts Risk Management	NIH, Roorkee	09-13 December 2019	A.D. Kaushik, Anil K. Gupta
37.	IRS: Planning Section Chief	NIDM, New Delhi	09-13 December 2019	Santosh Kumar, Shekher Chaturvedi
38.	SDG 11: Building Resilience of Cities & Communities	YASHADA, Pune	11-13 December 2019	Chandrani Bandyopadhyay
39.	Climate Change, Hill Area Development and Landslides Management	IIT Roorkee	16-18 December 2019	Surya Parkash
40.	Climate and Health: Disaster Epidemiology & Response	VMMC, Safdarjung Hospital, New Delhi	16-18 December 2019	Anil K. Gupta
41.	Psychosocial Care in DM	YASHADA, Pune	16-18 December 2019	Ajinder Walia
42.	School Disaster Management Plan	New Delhi	17-19 December 2019	Amir Ali Khan
43.	Financing DRR: Risk Transfer Mechanism	NIDM, New Delhi	17-19 December 2019	Santosh Kumar
44.	DRR for First Responders	GAA, Odisha	18-20 December 2019	Shekher Chaturvedi



We welcome comments / responses / articles from readers of our Newsletter

NIDM Newsletter - 5/2019 (July - September)

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