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Resilient India - Disaster Free India

TIDINGS

NIDM Newsletter–14/2022
(January - March, 2022)









NATIONAL INSTITUTE OF DISASTER MANAGEMENT

(Ministry of Home Affairs, Government of India)

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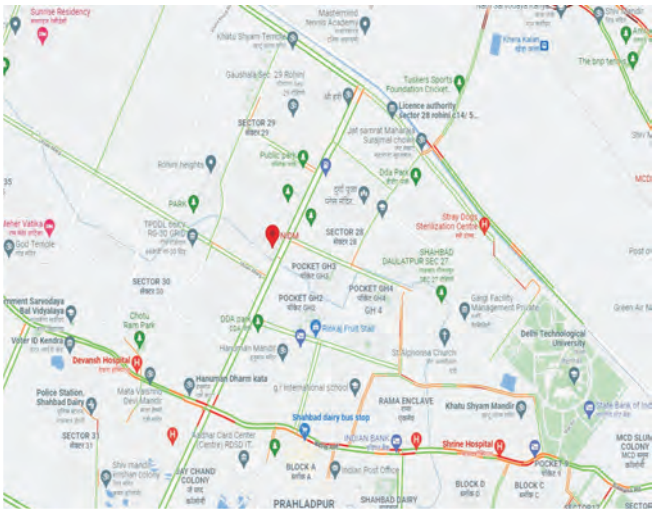
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About NIDM

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 re-designation 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.

From the NIDM

Executive Director's Desk



Dear Readers,

The last two years of COVID has taught us many lessons in terms of socio-economic losses and the whole machinery rose to the occasion to face the challenges posed by the pandemic. However, taking the cue from the long drawn pandemic, we should now focus more on systematic approach to handle such crisis and to build our capacity for future calamities.

During the pandemic, NIDM conducted all its training programmes through the virtual platform viz., Online Training Programmes, Webinars, Online Workshops / Seminars / Conferences, etc. NIDM is now gearing up to conduct more face-to-face training programmes both in and off campus. The training calendar for the year 2022-23 will focus on the lessons learnt from the Pandemic, and also cover other aspects of Disaster Risk Reduction (DRR) as per the charter of the NIDM.

I would like to congratulate the Faculty Members, Consultants and Young Professionals of this Institute who, despite the pandemic, conducted very many online courses on DRR, and also switched over to conducting face-to-face training programmes during the last quarter efficiently.

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Shri Taj Hassan, IPS
Executive Director

Face to Face Training Programmes
(Organized from January - March, 2022)

Preparedness and Capacity Enhancement of Coastal Communities on DR&R, 3-7 Jan 2022

Key Takeaway/Recommendations



a) Early warning systems to fishermen community have to be improved for the fishermen community.

b) Development should be sustainable and environment friendly.

c) Though the disaster trends are increasing in nature, effective usage of technology will minimise the impact and damage.

d) Improvisation of indigenous technology will enhance the effectiveness of response and warning systems.

e) The impacts of climate change that affect coastal states are visible in Kerala, which severely affects the coastal community. Active involvement of the academic institutions, research institutions and the administrative mechanism is essential for reducing coastal vulnerability.

f) The community engagements will reduce the risk of disasters in the emerging scenario of climate change.

g) Creating awareness on the linkage between disasters and environment and how protecting the natural environment can be strengthen.

h) Vulnerability maps produced can be used as broad indicators of the susceptibility of the people living along the coastline to coastal hazards.

i) Focus on adopting the sustainable solutions that in impacts of hazards in the communities.

j) The process of sharing information about hazards, vulnerabilities and adaptive mechanisms within organisations and public should be improved.

Child Centric Disaster Risk Reduction, 4-8 Jan 2022

Key Takeaway/Recommendations

a) Avoid touching eyes, nose and mouth / maintain respiratory hygiene / wash hands frequently and thoroughly.



b) Wearing a mask helps contain any potentially infectious respiratory droplets that may be released while breathing, talking, or coughing - especially when social distancing is more challenging and even if the person doesn't yet know they're sick.

c) Regularly clean and disinfect frequently touched surfaces to prevent the further spread of the novel corona virus which stays on the surfaces.

d) Promote social distancing (a term applied to certain actions that are taken to slow down the spread of a highly contagious disease, including limiting large groups of people coming together).

e) Understand basic information about corona virus disease (COVID-19), including its symptoms, complications, how it is transmitted and how to prevent transmission.

f) Stay informed about COVID-19 through reputable sources such as UNICEF, WHO and national health ministry advisories.

g) Do not circulate social media posts which carry unverified or negative information/Seek information on COVID-19 from credible sources

h) Seek psychosocial support for any stress or anxiety.

i) Don't panic if infected with the virus. It is curable and take necessary precautionary measures to keep a check on the further transmission of the deadly virus.

j) Being fully vaccinated is one of the best measures one can take to keep oneself and his/her family safe.

k) Disaster risk reduction planning is must in the time of Covid-19 outbreak.

l) Provide necessary ways for reconstruction, recovery, resilience approach to fight a post-disaster situation.

m) Re-plan one's institutional disaster response plan according to the government directives.

n) Make awareness among the participants on social distancing measures and avoidance of crowded places to contain the second wave of Covid-19.

River Sediment and Hydrological Extremes: Causes, Impact and Management, 7-11 March 2022

Key Takeaway/Recommendations



a) Inclusion of more practical/fieldwork aspects such as exposure visits to pumping station in order to give the participants first-hand experience of hydraulic projects.

b) Advanced or specialized training is key for developing trainers who can then propagate or spread their experiences at the grassroots level to build capacity.

c) Establish monitoring mechanisms for runoff, sedimentation, infiltration losses; downscaling climate models; applying hydrological models to predict floods.

d) All projects should take socioeconomic development into account as well as livelihood opportunities.

e) Promote the use of Earth observation technology assess the risks from multi-hazards.

f) Promote research on monitoring &management of drought to present an alarm before situation arises.

g) Develop data collection process easier for better assessment of on ground problems by creating app in local language to collect information.

h) Longer duration training programmes that should include participants across India so that the best practices are discussed and there is exchange of ideas.

"Urban Disaster Risk Reduction & Resilience in Metro Cities" in collaboration with Delhi Fire Safety Management Academy, 21-23 March 2022

Key Takeaway/Recommendations

a) Inclusion of more practical/fieldwork aspects such as exposure visits to disaster sites in order to give the participants first-hand experience of identifying problems and providing solutions to them.

b) Advanced or specialized training is key for developing trainers who can then propagate or spread their experiences at the grassroots level to build capacity.



c) To be sensitive to the fact that, minority population or socioeconomically deprived populations are often left behind in times of disaster.

d) Promote the use of Earth observation technology assess the risks from multi-hazards.

e) Promote research on monitoring & management of risks by employing all-hazard approach.

f) Develop multi-hazard early warning systems by involving multi-stakeholders.

g) Longer duration training programmes that should include participants across India so that the best practices are discussed and there is exchange of ideas.

h) The focus on providing an overview of disaster management. It entailed basic knowledge of key terminologies.

i) It also focused on Disaster Management, its governance, and the institutional structure for management in India.

j) Efficient response to tackle disaster would be possible through partnership with educational institutions.

Preparation & Updation of District Disaster Management Plan, 21-25 March 2022

Key Takeaway/Recommendations

a) The preparation of disaster management plan at all levels is not only mandated as per the Disaster Management Act 2005 but also a necessity to chalk-out action plan for mitigation and response.

b) The hazard and vulnerability analysis are key for any disaster management plan, and hence district level authorities must ensure fool-proof analysis of hazards and vulnerability of every area of their district.

c) Response plan handbook must be prepared as a ready reckoner for undertaking various activities during and after the disaster-strike. This handbook must also include the standard operating

procedures for every department as a reply to questions why, where, who and how activities are to be performed.



d) The district DM plan must be prepared with the involvement of all the stakeholders and must be disseminated to all concerned.

e) Regular mock drills must be carried out for implementation of the DM plan which will act as evaluation and monitoring mechanism for the plan.

f) A clear-cut mechanism must be developed to update the plan.

g) Every plan must specify the role and functioning of Emergency Operations Centre whether it is at district level or at site of operation.

h) Incident Response System, which has been adopted by Government of India as a tool for responding to emergencies, must form the back-bone of response plan.

i) Use of science and technology tools for management of disasters must find its way into the disaster management plan.

Earthquake Risk Mitigation and Awareness: A Community Based Approach, 21-25 March 2022

Key Takeaway/Recommendations



a) Earthquake cannot be predicted precisely with exact information hence building our resilience is most important step for preparedness.

b) Pre-preparation is very important to avoid the damage caused by earthquake. Preparation of a disaster emergency kit for every household in a community should be kept.

c) Loose and open electrical wirings should not be ignored in our houses, they are most common cause of fire and shocks in case of earthquake disaster.

d) Regular check on the stored fire extinguishers in the office and homes should be done.

e) Timely and regular mock drills in schools about do's and don'ts in case of earthquake and cascading disaster.

f) Always prepare a disaster management plan of school, houses to get the children out of school or homes at the time of earthquake, which should be shared with the children and teachers from time to time.

g) The emergency exits should always be kept clear of any obstructions and open. The layout of emergency escape route should be taught to all students and staff members.

h) Encourage students and staffs to promote all the precautions of Earthquake disaster and learn about the safe places and assemble point around the house and school.

i) The first responders is always the community, hence an informed and prepared community is the best preparedness measure in case of Earthquake.

Psychosocial Care in Disaster Management, 28 March-01 April 2022

Key Takeaway/Recommendations

a) A basic understanding of the pivotal concepts i.e., risk, capacity, mitigation, preparedness, and prevention.

b) To understand the type of disaster and resulting public health emergencies.

c) Understanding of emotional physical needs of the children by their parents.

d) How to overcome stress and maintain better mental health in the time of emergency.

e) A life cycle approach for addressing the needs and requirements of children.



f) Psychosocial support is essential for maintaining good physical and mental health and provides an important coping mechanism for people during difficult times.

g) Mental health interventions such as outreach, case finding, support groups, job groups, or advocacy groups, must be re-established in a more or less formal manner in order to assist in re-establishing linkages between individuals and groups.

h) Disaster workers within communities can help to educate families about age-appropriate responses to disaster and help parents understand unusual behaviors that may arise in their children.

Online Training Programs
(Organized from January - March, 2022)

S. No.	Name of the program	Date	Detailed reports can be accessed at following URL
1	Basics of Disaster Management	05-07 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_05-07January2022ga2.pdf
2	Island Biodiversity and Sustainable Resource Management on Disaster Resilience & Gender Perspective	05-07 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_05-07January2022ga.pdf
3	Ecosystem Conservation and Disaster Risk Management by Strengthening Community Based Regulatory Mechanism and Cultural Continuity	10-14 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_11-13January2022ga.pdf
4	Building Urban Resilience through Advanced Technology	11-13 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_10-14January2022akg.pdf
5	Enhancing the Preparedness against Omicron Variant of COVID	13-15 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Trg_13-15January2022akg.pdf
6	Training Programme on Making Schools Resilient & Safer	18-20 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_18-20January2022sp.pdf
7	Integration with private security industry & its role in emergency procedure & Disaster Risk Reduction (DRR)	18-20 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_18-20January2022el.pdf
8	Disaster Risk Reduction Resilience and Precautionary Measure for Covid 19 Management	19-21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_19-21January2022sp.pdf

S. No.	Name of the program	Date	Detailed reports can be accessed at following URL
9	Post Disaster Needs Assessment (PDNA) & Long Term Recovery	19-21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_19-21January2022sk.pdf
10	Rapid Capacity Enhancement for Risk Reduction during active Covid-19 Response	19-21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_19-21January2022sp2.pdf
11	Impact of Weather and Air Quality in the Changing Climate of Delhi & NCR	19-21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_19-21January2022sg.pdf
12	Programme on School Safety	19-21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_19-21January2022el.pdf
13	Disaster Management with focus on Covid-19 Pandemic	20-21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_20-21January2022sp.pdf
14	Orientation Training Programme on CCDRR	20-22 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_20-22January2022ccdrr.pdf
15	SDG12: Responsible Consumption and Production	27-29 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_27-29January2022akg.pdf
16	Content Orientation Training (COT) on CCDRR	27-29 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_27-29January2022ccdrr.pdf
17	Advanced Soft Computing Techniques in Disaster Management and Risk Assessment	27-29 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_27-29January2022akg2.pdf
18	Environment Biodiversity and Disaster Risk Management	27-29 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_27-29January2022sc.pdf
19	Community Based Disaster Risk Management	31 Jan-02 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_31-02January2022sc.pdf
20	Intersectionality of Women led Disaster Preparedness and Resilience	31 Jan-02 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_31-02January2022sp.pdf

S. No.	Name of the program	Date	Detailed reports can be accessed at following URL
21	Community Based Disaster Preparedness and Management	01-03 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_01-03February2022sk.pdf
22	Towards Net Zero: Channelling Energy Efficiency through Spatial Planning	01-03 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_01-03February2022akg.pdf
23	Floods and Drought Risk Mitigation under Climate Change	02-04 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_02-04February2022sp2.pdf
24	Coastal Disaster Risk Reduction and Resilience	02-04 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_02-04February2022sp.pdf
25	Empowering the Particularly Vulnerable Tribal Groups in Odisha	09-11 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_09-11February2022sg.pdf
26	Comprehensive Disaster Management	16-18 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_16-18February2022sc.pdf
27	Advances in Geoinformatics for Disaster Management and Mitigation (AGDMM)	21-23 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Trg_21-23February2022sp.pdf
28	IRS: Basic and Intermediate	21-23 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_21-23February2022sc.pdf
29	Mountain Rivers and Hazards Assessment Mechanics, Prediction and Countermeasures	21-23 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_21-23February2022akg.pdf
30	Natural Hazards and Anthropogenic Impact in the Western Ghats	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022aw.pdf
31	Incident Response System: Basic & Intermediate	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022sc.pdf

S. No.	Name of the program	Date	Detailed reports can be accessed at following URL
32	Conservation of Indian Cultural Heritage	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022sk.pdf
33	Retrospective View of Progress in Disaster Risk Reduction and Resilience	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022sp.pdf
34	Community Based Disaster Preparedness and Management	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022sk2.pdf
35	Man-made Disasters and Women as Responders Since Independence	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022akg.pdf
36	Disaster Management Plans to Enhance Resilience of Institutional Buildings	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022ga.pdf
37	Infrastructure Health Mapping Standards and Retrofitting of Built-up Facilities	23-25 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23-25February2022ga2.pdf
38	Child Centric Disaster Risk Reduction (CCDRR)	24-26 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_24-26February2022ccdrr.pdf
39	Disaster Management for Power Sector	02-04 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Trg_02-04March2022sp.pdf
40	Disaster Risk & Resilience Policies and Management	07-09 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_07-09March2022akg.pdf
41	Intersectionality of Women Led Disaster Preparedness and Resilience	08-10 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_08-10March2022sp.pdf
42	Linking DRR and SDGs in the Context of the Climate Crisis	09-11 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_09-11March2022sg.pdf

S. No.	Name of the program	Date	Detailed reports can be accessed at following URL
43	Engaging Youth & Adolescence in DRR & CCA	10-12 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_10-12March2022ccdrr.pdf
44	Disaster Preparedness and Response System-Issues and Challenges from Local to Global Level	10-12 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_10-12March2022sk.pdf
45	Engaging Youth and Adolescents in Disaster Risk Management	14-16 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_14-16March2022ccdrr.pdf
46	Disaster Management and Risk Reduction	14-16 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Trg_14-16March2022sp.pdf
47	Women's Mental Health in the time of COVID-19	15-17 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_15-17March2022sk.pdf
48	Engaging Youth & Adolescents in DRR	21-23 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_21-23March2022ccdrr.pdf
49	Disaster Management of Floods due to Climate Change	22-24 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Trg_22-24March2022akg.pdf
50	Occupational Health Hazards and Safety Measures for Health Care Workers	23-25 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Trg_23-25March2022akg.pdf
51	Disaster Risk Reduction and Management in Agriculture and Food Safety"	28-30 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Trg_28-30March2022akg.pdf
52	Child Centric Disaster Risk Reduction (CCDRR)	28-30 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Trg_28-30March2022ccdrr.pdf
53	Technologies in Disaster Risk Reduction	28-30 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_28-30March2022sg.pdf

Webinars
(Organized from January - March, 2022)

S. No.	Name of the webinar	Date	Detailed reports can be accessed at following URL
1	High-Level Policy Round Table on Science, Technology and Innovation Policy for Disaster Risk Reduction (STID)	06 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_06January2022akg.pdf
2	Disaster Management Plan of Central Ministries and Departments- Infrastructure and Business Resilience	12 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Webinar_12January2022akg.pdf
3	Ground and Satellite Observations to Understand Land, Ocean, Atmosphere, Cryosphere and Biosphere Coupling Associated with Natural Hazards	17 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_17January2022sp.pdf
4	Managing Water Related Extreme Events Under Climate Change	18 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_18January2022akg.pdf
5	Floods and Impact on Waste Management Infrastructure	19 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_19January2022akg.pdf
6	DM Plan of MoEFCC	20 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_20January2022akg.pdf
7	Community Based Planning for Disaster Risk Management	21 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_21January2022akg.pdf
8	Multi Hazard Disaster Risk and Resilience: Practical Learning and Step-by-Step Guide to Improve Disaster Resilience at City Levels	24 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_24January2022akg.pdf
9	Water System Hazards- Risk Mitigation and Preparedness	25 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_25January2022akg.pdf
10	Sendai Framework for Disaster Risk Reduction 2015-2030, Priority 1: Understanding Risk'	25 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_25January2022sk.pdf

S. No.	Name of the webinar	Date	Detailed reports can be accessed at following URL
11	Environmental Hazards and Risk Reduction	27 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_27January2022sp.pdf
12	Disaster Management-Efficient Use of Resources	27 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_27January2022sk.pdf
13	Enhancing Resilience of Coastal and Marine Ecosystem	28 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_28January2022sp2.pdf
14	Integrated Approach to Disaster Resilience: A Dialogue	28 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_28January2022akg.pdf
15	Cold Wave Precautions and Preparedness	28 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_28January2022sp.pdf
16	Disaster Risk Financing & Insurance Disaster and Insurance Awareness - Monthly Online Webinar (DIA-MOW) for Gujarat, Maharashtra, Goa, Rajasthan, Madhya Pradesh, Dadra And Nagar Haveli And Daman And Diu	28 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_28January2022sk.pdf
17	Earthquake Risk Mitigation for Sustainable Hill Area Development	31 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_31January2022sp.pdf
18	Conversation with the Winners of Subhash Chandra Bose Aapda Prabandhan Puraskar	31 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_31January2022sk.pdf
19	Behavioural Response during Covid-19 Pandemic	31 Jan, 2022	https://nidm.gov.in/pdf/trgReports/2022/January/Report_31January2022sp2.pdf
20	Disaster and Communities: Vulnerability, Resilience and Preparedness an Exploration of the Heritage	04 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_04February2022sk.pdf
21	Multi-hazard Disaster Risk and Resilience: Practical Learning and Step-by-Step Guide to Improve Disaster Resilience at City Levels	07 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Webinar_07February2022akg.pdf
22	Cyber Disaster Risk Reduction and Resilience	09 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_09February2022sp.pdf

S. No.	Name of the webinar	Date	Detailed reports can be accessed at following URL
23	Disaster Database: Issues & Opportunities	15 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Webinar_15February2022akg.pdf
24	Social Infrastructure (Health, Education and Housing sectors)	17 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_17February2022sk.pdf
25	Hazard Assessment, Mechanics, Prediction and Countermeasures for Riverine Environment	18 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_18February2022akg.pdf
26	Role of Electronics and Telecommunications in Disaster Management	18 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_18February2022sp.pdf
27	Integrated Forest Fire Management	22 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_22February2022sp.pdf
28	Strengthening Integrated Flood Risk Management	23 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_23February2022sp.pdf
29	Geo Hazard Risk Management University Imphal (Manipur)	24 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_24February2022aak.pdf
30	Disaster Management Vision 2047	24 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_24February2022akg.pdf
31	Earthquake Precursor Detection in the Indian Context	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_28February2022sp.pdf
32	Mainstreaming CCA and DRR into Development Planning	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Webinar_28February2022akg2.pdf
33	Understanding Mental Health during Disaster	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Webinar_28February2022sg.pdf
34	National Science Day 2022 Integrated Approach in Science and Technology for a Sustainable Future	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_28February2022sk2.pdf
35	Emergencies & Disaster Management: Threat and Hazard Identification for Risk Assessment (THIRA)	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_28February2022sp2.pdf
36	Disaster Risk Financing & Insurance Disaster and Insurance Awareness - Monthly Online Webinar (DIA-MOW) for Bihar, Jharkhand, Orissa, West	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_28February2022sk.pdf

S. No.	Name of the webinar	Date	Detailed reports can be accessed at following URL
	Bengal, Delhi, Haryana, Jammu & Kashmir, Himachal Pradesh, UP, Punjab, Uttarakhand		
37	Public Health Emergency and Disaster Management Capacities	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Report_28February2022sp3.pdf
38	Disaster-Induced Internal Displacement: Issues and Opportunities	28 Feb, 2022	https://nidm.gov.in/pdf/trgReports/2022/February/Webinar_28February2022akg.pdf
39	Dam Safety and Disaster Risk Management in Collaboration with Dam Rehabilitation and Improvement Project (DRIP) Central Water Commission, GoI	02 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_02March2022sp.pdf
40	The role of Satellite Remote Sensing in Forest Fire Management	08 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_08March2022sp.pdf
41	Public Safety against Chemical Disasters	10 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_10March2022sp.pdf
42	Youth Participation in Disaster Risk Management (PM 10 Pt Agenda no. 1,3&9: SDG: 3&5	10 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_10March2022ccdrr.pdf
43	Industrial Disaster Risk Reduction & Resilience	11 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_11March2022sp.pdf
44	Critical Infrastructure (Energy, Power and Telecommunication)	15 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_15March2022sk.pdf
45	Landslide Hazard Risk Assessment and Management-A Special Focus on Himachal Pradesh	15 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_15March2022sp.pdf
46	Disaster and Biodiversity	19 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_19March2022akg.pdf
47	Building Disaster Resilient Communities	23 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_23March2022ga.pdf
48	Mangroves and Disaster Risk Reduction	25 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_25March2022akg.pdf
49	Challenges on Management of Chemical/Industrial Disasters	28 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_28March2022sp.pdf

S. No.	Name of the webinar	Date	Detailed reports can be accessed at following URL
50	Geohazards: Risk Assessment and Mitigation Strategies	29 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_29March2022akg.pdf
51	IoT Devices for Early Warning System	29 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_29March2022ga.pdf
52	Disaster Preparedness for School Safety	29 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_29March2022ccdrr.pdf
53	Heat Wave Preparedness and Response	30 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_30March2022sp.pdf
54	Covid-19 Pandemic Response and Management in India	30 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_30March2022sp2.pdf
55	Importance of Mental Health in Emergencies	31 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_31March2022akg.pdf
56	Community Based Public Health Emergency and Disaster Management	31 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Webinar_31March2022sp.pdf
57	GIS Based Tools for Forest Fire Mapping and Management	31 Mar, 2022	https://nidm.gov.in/pdf/trgReports/2022/March/Report_31March2022ga.pdf

Upcoming/Proposed Face to Face Training Programmes (April-June, 2022)

S. No.	Name of the program	Date	Details can be accessed at following URL
1	PM Agenda No. 4 & 9: ToT/PDP on Capacity Enhancement for integration and mainstreaming of SFDRR, SDG and CCA	04-08 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_04-08April2022sp.pdf
2	Climate Change and Disaster Risk Reduction in District Level Plans	04-08 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_04-08April2022akg.pdf
3	ToT/PDP on Post Disaster Needs Assessment and Long Term Recovery	04-08 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Report_04-08April2022sk.pdf
4	ToT on Understanding Mitigation Measures for Urban Resilience-Role of Civil Defence	05-09 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_05-09April2022ga.pdf
5	River, Disaster Resilient Development & Planning (for Earthquake, Landslides, Flashflood, Erosion and Climate Risks) at Local bodies North Eastern Regions	18-22 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_18-22April2022akg.pdf
6	Training of Trainers Programme on Child Centric Disaster Risk Reduction	18-22 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_18-22April2022ccdrr.pdf
7	ToT Programme on Child Centric Disaster Risk Reduction	18-22 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_18-22April2022ccdrr2.pdf
8	Preservation & Conservation of Cultural Heritage Sites and Precincts	18-22 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_18-22April2022sk.pdf
9	ToT/PDP on Post Disaster Needs Assessment for Long Term Recovery	25-29 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_25-29April2022sk.pdf
10	Training of Trainers Programme on Child Centric Disaster Risk Reduction	25-29 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_25-29April2022ccdrr.pdf
11	Incident Response System (IRS):Basic & Intermediate	25-29 April, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_25-29April2022sc.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
12	ToT/PDP on Post Disaster Needs Assessment for Long Term Recovery	09-13 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_09-13May2022sk.pdf
13	ToT on Multi-hazard Risk Reduction and Resilience with special emphasis on Chemical & Industrial DRR	09-13 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_09-13May2022sp.pdf
14	TOT on School Safety	09-13 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_09-13May2022aw.pdf
15	Incident Response System (IRS): Basic & Intermediate	17-20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_17-20May2022sc.pdf
16	ToT Program on Inspiring the Minds for the Disaster Risk Reduction	17-21 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_17-21May2022sk.pdf
17	Climate Information for Disaster Resilient Agriculture	18-20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_18-20May2022akg.pdf
18	Incident Response System (IRS) for Police	23-27 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_23-27May2022sc.pdf
19	Training of Trainers Programme on Child Centric Disaster Risk Reduction	23-27 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_23-27May2022ccdrr.pdf
20	Training of Trainers Programme on Engaging Youth & Adolescents in DRM & CCA	23-27 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_23-27May2022ccdrr2.pdf
21	Integrating Disaster Management Plan with Gram Panchayati Development Plan	25-27 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_25-27May2022sg.pdf
22	Training Programme on Disaster Management	30 May-03 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_30-03May2022sp.pdf
23	Long Term Recovery and Reconstruction Strategies	30 May-03 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_30-03May2022aak.pdf
24	Urban Flood Management for Smart Cities Coordinators on Disaster Management	01-03 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_01-03June2022el.pdf
25	Public Health Emergency, Disaster Preparedness and Response	02-04 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_02-04June2022sp.pdf
26	ToT on Comprehensive Disaster Management	06-10 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_06-10June2022sc.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
27	ToT Programme on Child Centric Disaster Risk Reduction	06-10 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_06-10June2022ccdrr.pdf
29	Training Programme on Safe Hill Area Development	15-17 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_15-17June2022aak.pdf
30	ToT Programme on Forest Fire Risk Mitigation	15-17 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_15-17June2022ga.pdf
31	ToT Programme on Child Centric Disaster Risk Reduction	20-24 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_20-24June2022ccdrr.pdf
32	Community Based Disaster Risk Management	20-24 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_20-24June2022aw.pdf
33	Addressing Disaster and Climate Change Issues for Safer Sustainable Hill Area Development covering Forest Fires, Landslides, Avalanches, Lightning, Earthquakes, Cloudburst, Floods, Droughts and Extreme Weather Events	22-24 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_22-24June2022sp.pdf
34	Training Programme on Basics of DM with focus on Preparations of DM Plan & Business Continuity	27-29 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Report_27-29June2022sg.pdf

Upcoming/Proposed Online Training Programmes
(April-June, 2022)

S. No.	Name of the program	Date	Details can be accessed at following URL
1	Virtual International Conference on Challenges to Disaster Risk Reduction and Resilient Habitat Shaheed Bhagat Singh College, Delhi University	05-06 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_05-06April2022akg.pdf
2	Disaster Risk Climate Change and Resilient Development	05-07 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_05-07April2022akg.pdf
3	Drought & Flood Analysis and their Management	14-18 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_14-18April2022sp.pdf
4	Disaster Risk Reduction and Resilience	19-21 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Report_19-21April2022spal.pdf
5	Earth Observation Technology in Disaster Management	27-29 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_27-29April2022akg.pdf
6	Agri-Systems and Infrastructure Resilience to Disaster	28-30 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_28-30April2022akg.pdf
7	Engaging Youth and Adolescents in DRM & CCA	28-30 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_28-30April2022ccdrr.pdf
8	Infrastructure Health Assessment & Grading System	28-30 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Trg_28-30April2022ga.pdf
9	Engaging Youth and Adolescents in DRR & CCA	04-06 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Report_04-06May2022ccdrr.pdf
10	Industrial Risk and Disaster Management	09-11 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_09-11May2022akg.pdf
11	Capacity Enhancement on Disaster Risk Management	17-19 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_17-19May2022sp.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
12	Child Centric Disaster Risk Reduction	18-20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_18-20May2022ccdrr.pdf
13	Understanding Coastal Disasters through Geospatial Technologies	18-20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_18-20May2022sp.pdf
14	Role of Youth, Police and Communities in Disasters and Forest Fire Management	18-20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_18-20May2022ga.pdf
15	Making Indian Cities Disaster Resilient towards Responsive and Actionable Urban Planning, Policy and Development	23-25 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_23-25May2022akg.pdf
16	Coastal Climate Change Adaptation and Disaster Risk Reduction	30 May-01 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Trg_30-01May2022sp.pdf
17	Role of Emerging Technologies in Risk and Safety Management	01-03 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_01-03June2022akg.pdf
18	Advances in Teaching and Research in the field of Disaster Resilience and Green Technology for Sustainable Development Goals	06-10 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_06-10June2022akg.pdf
19	Emerging Technology Trends for Effective Disaster Management	08-10 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_08-10June2022akg.pdf
20	Engaging Youth and Adolescents in DRM & CCA	08-10 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Report_08-10June2022ccdrr.pdf
21	Industrial Safety and Disaster Management	14-16 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_14-16June2022akg.pdf
22	Disaster Risk Reduction and Resilience	14-16 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_14-16June2022spal.pdf
23	Disaster Resilient Built-up Infrastructure of the Institutions: Focus on Earthquakes & Fires	14-16 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Trg_14-16June2022ga.pdf

Upcoming/Proposed Webinars
(April-June, 2022)

S. No.	Name of the program	Date	Details can be accessed at following URL
1	Heat Wave and Health Management	04 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_04April2022sp.pdf
2	Orientation For Basic Online Course (Comprehensive Disaster Risk Management Framework)	04 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_04April2022el.pdf
3	DRR for Business Continuity towards Zero Hunger	05 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Report_05April2022akg.pdf
4	Forest Fire Management	05 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Report_05April2022spal.pdf
5	Multi-layered, multi-sectoral and multi -agency coordination in context of COVID-19 in collaboration with National Centre for Disease Control (NCDC) and U.S. Centers for Disease Control and Prevention (CDC), Country office India	06 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_06April2022sp.pdf
6	Our Planet, Our Health: Clean Water, Air & Food Preventing Health Emergencies and Disasters in collaboration with ABVIMA & RML Hospital	07 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_07April2022akg.pdf
7	Climate Change 2022: Impacts, Adaptation and Vulnerability-Challenges & Solutions	12 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Report_12April2022sk.pdf
8	Legislation and policy framework to deal with Disaster and Health Emergencies in collaboration with National Centre for Disease Control (NCDC) and U.S. Centers for Disease Control and Prevention (CDC), Country office India	13 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_13April2022sp.pdf
9	Child Protection in Emergencies	15 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_15April2022ccdrr.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
10	Role of Remote Sensing and Emergency Operation Centre for Management of Heat waves	20 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_20April2022sp.pdf
11	Public Health Emergency Management (PHEM) and Public Health Emergency Operations Centers (PHEOC) in context of public health emergency preparedness and response in collaboration with N ational Centre for Disease Control (NCDC) and U.S. Centers for Disease Control and Prevention (CDC), Country office India	20 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_20April2022sp2.pdf
12	Satellite Remote Sensing for Understanding the Natural Hazards and Mitigation Strategies	25 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_25April2022sp.pdf
13	Glacial Lake outburst flood (GLOF), Causes and Consequences	26 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Report_26April2022spal.pdf
14	LoRa Technologies for Early Warning System: A Practical Demonstration	26 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_26April2022ga.pdf
15	Youth for Climate Action	26 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_26April2022ccdrr.pdf
16	Overview of WHO's PHEOC Framework and Global Common Minimum Standard in collaboration with National Centre for Disease C ontrol (NCDC) and U.S. Centers for Disease Control and Prevention (CDC), Country office India	27 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_27April2022sp.pdf
17	Chemical (Industrial) Disaster Management – Part I	28 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_28April2022akg.pdf
18	Impact of Climate Change and Disaster on Agriculture and Mitigation Strategies	29 Apr, 2022	https://www.youtube.com/watch?v=VQKN5wu9yLI
19	Chemical (Industrial) Disaster Management – Part II	29 Apr, 2022	https://nidm.gov.in/pdf/trgReports/2022/April/Webinar_29April2022akg.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
20	Industrial Safety and Disaster Management	30 Apr, 2022	https://www.youtube.com/watch?v=UK7xzxyt6rI
21	Developing and Strengthening a PHEOC–Infrastructure and Information Technology: in collaboration with National Centre for Disease Control (NCDC) and U.S. Centers for Disease Control and Prevention (CDC), Country office India	04 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_04May2022sp.pdf
22	Application of Space-based Technology in Disaster Management in collaboration with Kerala State Disaster Management Authority	10 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_10May2022sp.pdf
23	Brainstorming Session cum Webinar on SDMPs and DDMPs in collaboration with Sphere India	10 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_10May2022akg.pdf
24	Linking PHEOCs with Integrated Health Information Portal	11 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_11May2022sp.pdf
25	Glacial Lake outburst flood (GLOF) in Himalayan Region	13 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_13May2022sp.pdf
26	NIDM Online Courses & Self Study Programme: How to Participate	17 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_17May2022el.pdf
27	Application of Incident Management System and Incident Response System in Managing Disasters and Public HealthEmergencies with focus on Covid-19 Pandemic Response	18 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_18May2022sp.pdf
28	National Consultation on Disaster Risk Reduction in collaboration with Sphere India	20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_20May2022akg.pdf
29	Ham Radio Communications during Emergencies	20 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_20May2022ga.pdf
30	Cyclone Impacts on Infrastructures	23 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Report_23May2022ga.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
31	Application of Remote Sensing in Disaster Management	24 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_24May2022sp.pdf
32	Logistics and Supply Chain Management in Public Health Emergencies and Disaster Management	25 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_25May2022sp.pdf
33	Urban Flood and Its Impact	26 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_26May2022sp.pdf
34	Prospective Farming for Disaster Resilient Agriculture: Ground Experiences	27 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_27May2022akg.pdf
35	Heat Waves and Drought in Disaster Risk Reduction	27 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_27May2022sp.pdf
36	Technology for Disaster Resilient Agriculture	30 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_30May2022akg.pdf
37	Heat Wave Risk Management	31 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_31May2022akg.pdf
38	Post-COVID Transitioning of Children from Home to Schools: A Psycho-Social Perspective	31 May, 2022	https://nidm.gov.in/pdf/trgReports/2022/May/Webinar_31May2022ccdrr.pdf
39	International Health Regulations and Global Health Security with focus on COVID19 Pandemic Management	01 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_01June2022sp.pdf
40	Living Susta inability in Harmony with Nature	05 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_05June2022sp.pdf
41	Lightning and Thunderstorm: Risk Reduction and Safety Measures	06 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_06June2022sp.pdf
42	Early Warning System for Lightning and Mitigation Measures	08 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_08June2022ga.pdf
43	Ocean Climate Change and Disaster Management	08 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_08June2022akg.pdf
44	Rapid Response Team (RRT) for Pandemic Preparedness	08 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_08June2022sp.pdf
45	Industrial Disaster Risk Reduction and Resilience	10 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_10June2022spal.pdf
46	Risk Communication and Community Engagement (RCCE) in context of COVID-19	15 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_15June2022sp.pdf

S. No.	Name of the program	Date	Details can be accessed at following URL
47	Leveraging Geospatial Technology in Disaster Management	17 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_17June2022sp.pdf
48	Safe, Sustainable and Resilient Health Infrastructures, Systems and Services	22 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_22June2022sp.pdf
49	Integrating SDGs and DRR into Higher Education	28 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_28June2022akg.pdf
50	Hydrological Resilience towards agriculture and Food Security	28 June, 2022	https://www.youtube.com/watch?v=W9CwbsiA2S4
51	Community Engagement in Public Health Emergency and Disaster Management	29 June, 2022	https://www.youtube.com/watch?v=GdvDsJSkjsI
52	Geo-spatial Technology for Landslide Risk Reduction and Resilience	30 June, 2022	https://nidm.gov.in/pdf/trgReports/2022/June/Webinar_30June2022sp.pdf

Thematic views

Cyclone Risk Management in India: Time to Rethink

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The unique geo-climatic conditions along with the socio-economic conditions made India Vulnerable to a large number of Natural and Human Induced hazards in varying degrees. India has a coastline of about 7516kms and exposed nearly 10% of the world's tropical cyclones spread across thirteen coastal states and Union Territories (UTs) in the country, encompassing 84 coastal districts (NIDM, 2014). In addition, the coastal regions are home to about 170 million populaces. Although the North Indian Ocean (the Bay of Bengal and Arabian Sea) generates 5 to 6 Tropical Cyclones per year but their impact is comparatively high and devastating. The study, titled Changing status of tropical cyclones over the north Indian Ocean, the frequency of cyclones in the Arabian Sea between 2001 and 2019 increased by 52% and by 8% in the Bay of Bengal, compared with the 19-year period between 1982 and 2002 (Singh, 2000). The alarming aspect is that, not just the frequency, the intensity and duration of the cyclones over the north Indian Ocean is also rapidly increasing which poses increased threat to the Coastal Areas.

From the 1970 Bhola cyclone to the recent cyclone Asani, India had a proven history in cyclone risk management by reducing the casualties from thousands to zero (Figure-1). India made a rapid progress in leveraging the technology Cyclone alerts forecasting, monitoring and dissemination. The introduction of dynamic and impact-based cyclonic warning system by IMD is the best illustration of advancement in technological adaptations. However, the death toll has been reduced to zero by adopting the culture of prevention, mitigation and preparedness measures while the economic losses remained the same and sometimes high also.

The early evacuations are the primary reason for rapid reduction in death toll. The two major deficiencies in India's cyclone risk management are, first the overemphasis on a total evacuee figure and the second is inadequate focus on response aspects such as measures to minimize crop damage, support for quick harvest, appropriate relief and timely distribution of post cyclone aid for damaged houses, etc. These are the limitations where we have to retrospect our learned lessons and a better performance in the future.

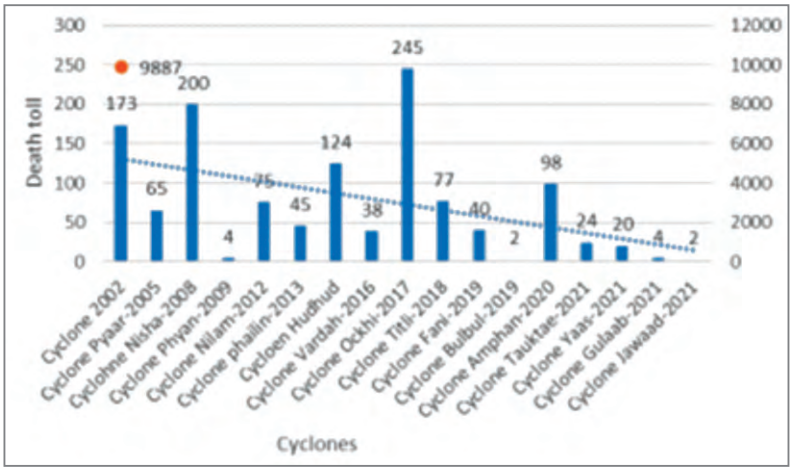


Figure 1 Number of Deaths During Cyclones
Source: NCB; news articles

The primary cause of destruction during any major cyclone is due to the storm surge conflated with the impact of high wind speed. From

the previous experiences it was evident that, the high gusting winds during cyclones poses threat from tidal or storm surges of significant heights. The practice of essential horizontal evacuation can secure the residents in the vulnerable region. However, the structurally designed relief shelters as well as concrete public /private buildings may not be able to withstand the impact if there is a surge of significant height. Our current strategy is worked in the past few cyclones where the tidal surge was limited up to a kilometer. The current strategy proved to be inadequate if there is a repeat of super cyclone with tidal inundation of up to 20km.

Second, the nation's economy is in danger due to changes in weather patterns and seasonal timing. For example, the cyclone Jawad formed where the crops are getting ready to harvest in most of the regions. There are reports of distress sales and premature harvesting due to the cyclones. Apart from the fore warning, there should be a discussion on advanced harvesting measures and ways protect their produce in adverse weather conditions. Similarly, there is very little discussion about the relief's quality &quantity, the element of resilience. (Dash, 2021).

India adopted the concept of learning from the past for a safe and resilient future but have we really learned lessons and improved our performance during cyclone risk management. The pace at evacuation is taking place is not matched with pace of adopting resilient measures and relief approaches after cyclones. It's time to recognize that there is more to cyclone risk management other than the evacuation.

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Stop the Spiral of Self-destruction

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We seem to be over-optimistic in doing development, underestimating disaster risk and less concerned about resilience building. Latest GAR 2022 report highlighted the reverse path of our "sustainable" development in which we are going towards self-destruction. Our development programmes are increasing the risk to the community and society making them more vulnerable to invited disasters. This is not only jeopardising the achievement of the targets of the Sendai Framework for DRR but also hindering the progress of Sustainable Development Goals and the Paris Agreement on Climate Change.

Climate change is one of the hottest topics of discussion but are we actually taking it beyond the discussion? What are we contributing as an individual to protect the environment, reduce greenhouse emissions and control the CO_2 footprints? Primary responsibility lies on the governments and policymakers but individuals also have to take ownership of their surrounding environment. A behavioural change is a must for the larger cause of environment conservation not only for ourselves but for the coming generations.

In one way we are achieving the tremendous targets of development and in another, we are losing our environment by intentionally ignoring the adverse impact of our development pattern. Huge concrete jungles replaced the natural ones by giving a toss to the laws, rules and regulations. Rule books' apatite has been fulfilled by writing building bye-laws which are rarely implemented making society more vulnerable.

COVID-19 taught us lessons to be more responsible and vigilant in the pathway of development. Many countries have experienced the collapsing infrastructure of health during COVID-19, including the ones with the best facilities in the world. Oxygen shortage was one of the major challenges many countries faced. It can be argued that the recent pandemic could not be anticipated but can we forecast all other disasters?

We have to stop this spiral of self-destructive development by transforming the governance system, and how systematic risk is understood and addressed. The best defence against systematic risk is to transform systems to make them more resilient. Policy and individual action can reverse this trend. Risk reduction actions must be accelerated and should be imbibed in every step taken towards development. As the foreword of the sixth edition of the United Nations Global Assessment Report on DRR says "nothing undermines sustainable development like disasters".

Forest Fire and IoT Devices for Early Warning

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Forests are called the lungs of the earth, they purify the air by controlling the carbon dioxide present in the atmosphere. At present, the biggest crisis for forests is in the form of fire. Throughout the globe cases of forest fires are increasing day by day. The current fire in Europe is a great example of this. Forest fire has a negative impact not only on the forest ecology but also on the forest-dwelling tribes, their livelihood options, and all other surrounding environments.

India also witnesses a large number of forest fire events every year. Himachal, Uttarakhand, Karnataka Telangana and North East Indian states are most affected by the Forest fire incidents. It is increasing due to changes such as an increased Earth's temperature, irregular rainfall, longer dry days and a large number of heatwaves. This year India has faced a long phase of a heat wave which has resulted in an increase in forest fires. In March, April and May, various states of the country faced a huge amount of forest fires as a result of the heatwave. Madhya Pradesh, Uttarakhand, and Odisha were at the top. Himachal has also reported twice as many fire cases as last year.

A forest fire can be mitigated if it can be identified at an early stage. Various technological innovations can help us in the prevention and mitigation of forest fire. So, It is important to learn new methods, tools and technologies that can help us to prevent forest fires.

IoT device: Internet of Things (IoT) is the network of physical items, or "things," that are implanted with sensors and software for the purpose of communicating and exchanging data with other devices. IoT equipped with desired sensors would be able to function as an early warning system that could be used to prevent any kind of disaster from occurring. For forest fire, major sensors are CO_2, temperature and Smoke.

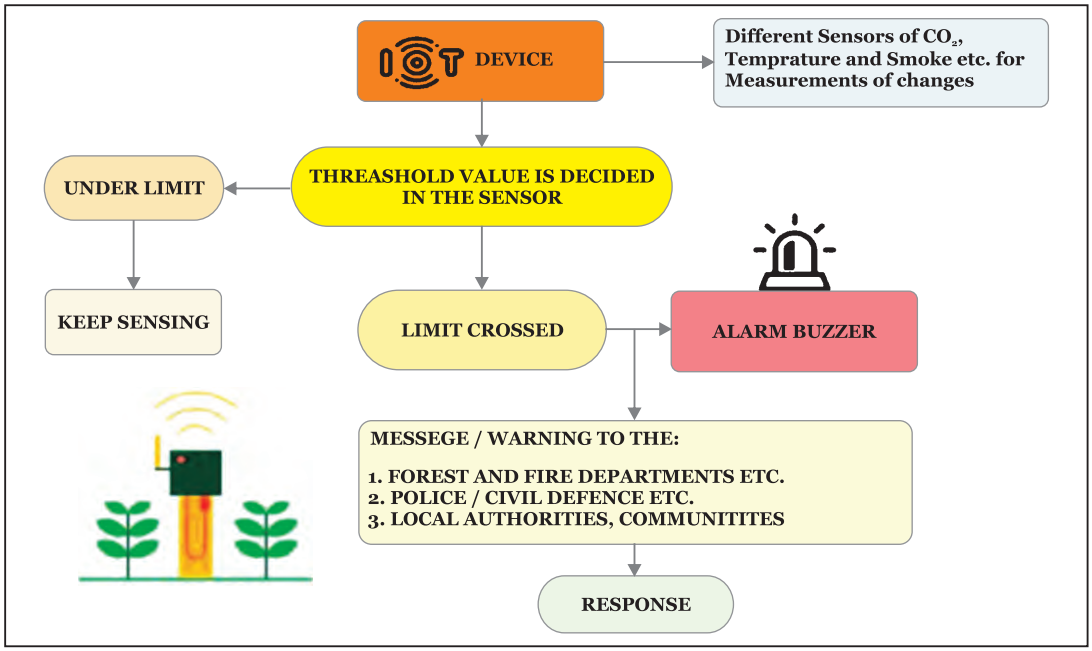


Figure: IoT Functioning in Forest Fire

Usage of IoT Devices for Forest Fire:

1. Quick detection (Under 60 mins).
2. Early warning for mitigation and quick response.
3. Area identification and spread control.
4. Temporal and spatial data collection for better management.
5. Informing the concerned authorities and local communities.

The most important thing for forest fire mitigation is to keep an eye on it and detect and control it in its early stages. IoT devices can monitor forest fire through various sensors by installing them in different parts of the forest. Early identification, quick reaction, and rapid information circulation are some basic but important points for forest fire mitigation and management.

Disaster Risk Management

Shaad Warsi
Young Professional

India is a highly disaster-prone region for droughts, earthquakes, cyclones, tsunamis, and river erosion. Small and marginal farmers are most affected by rising temperatures, as farm incomes are falling. This leads to migration and increases the fragility of urban deprivation.

Risk basically involves two elements. The first element is probability and the second element is interchangeability.

Probability is just the chance of an event but we are not sure how likely it will be. To what extent would this be possible? So, when we start looking for that calculation and when we start to understand the calculation of probability degree then the probability is measured and that is where probability comes into the picture then it is a degree of probability which is measured in the example it is monsoon season and there is a chance of rain but what is that chance and what is 50% chance 70% chance? So that's where possibility comes into the picture. So, risks incorporate the concept of these two elements that something is possible and what is the degree of possibility of that something that is the probability so that two things that we need to understand the concept of Risk.

Mixed disasters, a combination of several linked events, are another emerging risk that is following the path of rapid and massive development. The extent of vulnerability to natural hazards is a primary determinant, but issues of minor and localized disasters have also emerged. Community-based disaster preparedness programs have been implemented in many parts of the country, resulting in a reduction in deaths due to disasters in several states in the recent decade. Social factors are both the cause and effect of many complex disaster situations in India.

India will understand disaster and climate risks in context and invest in risk reduction, monitoring, and mitigation of losses and damages while ensuring accountability to affected and at-risk populations.

It reaches women, girls, men, and boys in high-risk disaster-prone areas for humanitarian assistance and disaster preparedness interventions, including the COVID-19 pandemic, with no one left behind, especially vulnerable people.

It also strengthens the resilience of communities to recover from disasters, anticipate, adapt and respond to the harmful effects of various disasters and climate change, and ensure rights, dignity, and inclusion for their development. Takes leadership action.



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