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Resilient India - Disaster Free India

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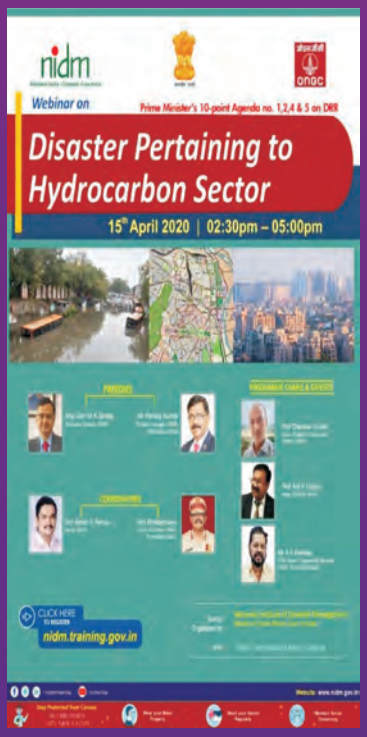
NIDM Newsletter–11/2021
(April-June, 2021)

Theme: Last Mile Connectivity









NATIONAL INSTITUTE OF DISASTER MANAGEMENT
(Ministry of Home Affairs, Government of India)

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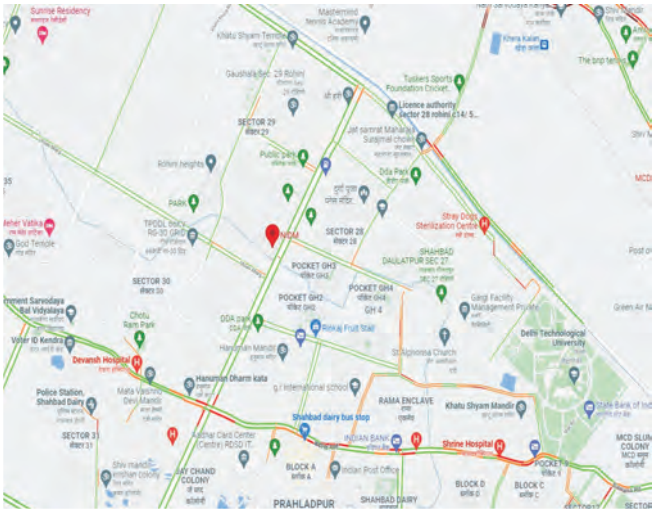
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About NIDM

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,

We had all started the year 2021 with the hope of overcoming Covid-19 and were preparing ourselves to go back to normal. However, things took a different turn and we had to face a fatal second wave of covid-19 in the country. The COVID-19 pandemic has brought renewed attention to the importance of strengthening disaster risk reduction. We have been battling the pandemic for over a year but it appears that the battle is not won over as yet. A Dearth of oxygen cylinders and ventilator beds, shortage of drugs and vaccine during the second wave of COVID 19 goes to show that we still need to strengthen our preparedness to overcome the deadly virus. I offer my sincere condolences to the citizens of the country who have lost their precious loved ones in this battle.

Difficult times provide opportunities to learn improve and come out of any crisis stronger. While we saw many struggling, there were also inspiring responses dealing with the crisis. There were endless examples; from providing meals to the migrants to ensuring government hospitals have required medical equipment. For economic recovery, many non-profits and corporate entities put in their efforts with the government to ensure community members engage in sustainable livelihoods.

In these times, it is important that society gets together and comes forward to support with its own initiatives and inherent strength. This should be reported on a large scale for motivating many more so that the dependence on the system is considerably reduced. The pandemic has highlighted that solution to any social problem calls for an effective collective action that coordinates the aspirations of several groups of stakeholders. Please know your responsibilities and do your part.



Major General Manoj Kumar Bindal, VSM
Executive Director, NIDM

Webinars

Climate Change and Nutrition Voice of Children and Perspectives for Future in collaboration with Sundarban Social Development Centre (SSDC), West Bengal, 7th April 2021

Key Takeaway/Recommendations



a) Emphasis on food systems perspective related to climate change impact on all aspects of the food supply chain from farm to fork, including agricultural production, storage, processing and distribution, retail and marketing, in addition to preparation of food and consumption.

b) To include both the long- and short-term effects of temperature and rainfall in their models, as well as other things that might affect a child's diet and looked at diet diversity the number of types of foods that someone eats in children 5 years and younger

c) Approach for transforming and reorienting agricultural systems to support food security under the new realities of climate change.

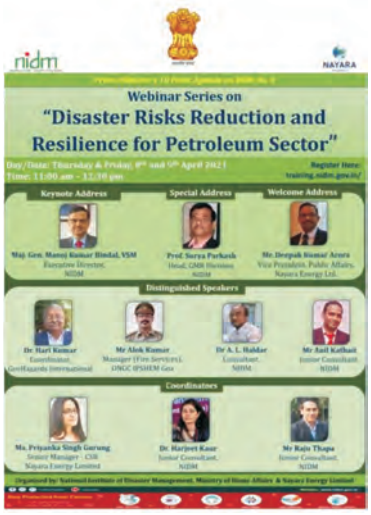
d) To increase resilience and resource use efficiency in agricultural production systems.

e) Outline a spectrum of processes involved in the food supply chain from input to utilization, with a goal to improve nutrition entering the value chain and reducing nutrition exiting in the face of climate change.

f) To promote and coordinate Climate Smart Agriculture (CSA) actions by farmers, researchers, private sector, civil society and policymakers towards climate-resilient pathways.

Prime Minister's 10 Point Agenda on DRR: No. 8 DRR: Disaster Risk Reduction & Resilience for the Petroleum Sector in collaboration with Nayara Energy Ltd., Maharashtra, 8th & 9th April 2021

Key Takeaway/Recommendations



a) Different kinds of situations can actually impose different kind of hazards and risks on our various elements including human lives, properties, economic, livelihoods and other relevant resources. If we'd get take notice of small disasters and happenings around us which can result or turn into a big disaster, we can actually avoid large disasters or big disasters.

b) Every disaster actually gives us an alert or a warming but which sometimes goes unnoticed and then we are caught unprepared in those situations. Often, we leave some space for such disasters to happen and that space, that gap should be filled up through our knowledge, experiences, innovations, technology, techniques and tools.

c) Better coordination, collaboration and connectivity is required between different organizations and disaster management authorities at all level for better management of any emergency situation.

d) We have to give adequate fire safety training to employees especially for the newcomer as per the emergency response plan.

e) Petrol pumps are hub of combustible items, hence massively vulnerable of ignition. Avoid anything that can trigger fire like smoking, lighter, electronic equipment and so on.

PM 10 Point Agenda No. 9 on DRR Fire Safety and Children in collaboration with GSB's Smt. Surajba College of Education conducted by ICBE Mumbai, 8th April 2021

Key Takeaway/Recommendations



a) The first tip for fire safety is to educate your child about the importance of their safety. Talk to them about what happens during a fire, and how they must keep themselves safe at all costs. They should be aware of all preventive measures and how to be safe around fire.

b) Children must be forbidden from playing with matches and lighters. Unless they are under adult supervision, they must not be allowed to use these items and even then care must be taken to avoid any accidents.

c) Teaching your children, young and old, to be careful not to leave burning candles and incenses around, is essential. Leaving exposed heat is a fire hazard waiting to happen. Tell your child always to be careful whenever leaving a room, and to extinguish the flame or the lit-up item.

d) It's never safe for children to be close to fire sources, be it an active fireplace or the stove. You must tell them that playing around these places could pose a severe health hazard and is extremely dangerous.

e) Your children must know that in case of a fire, they should never look for places to hide. Finding the nearest exit and leaving is important, so show them all the possible ways of getting out of the house.

PM 10 Point Agenda No. 8 & 9, Climate Smart Resilience Children and Education Sector in collaboration with Madurai Kamaraj University, 12 April 2021

Key Takeaway/Recommendations



a) Prepare to establish a Safe Schools Team at school level.

b) Host a school and community meeting to form Safe Schools Team

c) Organize a Safe Schools Team kick-off

d) Understand Hazards, Risks and Capacities

e) Identify further Risks in and around the school

f) Make a Risk-informed Safe School Plan

g) Update or develop a code of conduct

h) Strengthen reporting and referral procedures

i) Plan for education and protection continuity

j) Implement Standard Operating Procedures for emergencies

k) Practice, monitor and revise the emergency response plan

l) Reach out to wider Community and Duty Bearers

Fire Safety and Disaster Management in Hydrocarbon Sector in collaboration with ONGC, 15 April 2021

Key Takeaway/Recommendations



a) Fire escape route in every building needs to be enforced, in case it is not possible to change building architecture, additional exit paths should be strategically located in building to improve egress timing, and thus, improve life safety.

b) Need to improve fire protection features in buildings using fire compartment concept.

c) Reserved parking spots should be provided for fire-fighting vehicles in building sites along with maintaining active water mains, fire extinguishers, and a separate water tank to reduce initial start time of fire-fighting operations.

d) Effective warning system in the event of fire is required.

e) Uniform criteria of structures for building codes must be developed for fire hazard based on building design characteristics, potential of fire hazard, significance of building, and impact of fire hazard.

f) Risk-based classification should be integrated with building design using performance based codes and standards to make building codes more effective in evaluating realistic fire performance of building.

g) Sufficient allocation of funds must be imbibed for prevention of disaster, mitigation, capacity building and preparedness.

h) Integrating DRR into development plans/projects, measures for prevention or mitigation of disasters in accordance with NDMA guidelines needs to be considered.

i) Need to include disaster management training in ONGC regular training curriculum in consultation with NIDM.

j) Perform routine audits and inspections must be requires to avoid any fire incidents

k) Employees should be trained on safe work procedures and ensure ample workforce for firefighting operations. Fire drill should be performed with adequate equipment and training to execute emergency fire drill with high efficiency.

Prime Minister's 10-Point Agenda No. 1,2,4 & 5 on DRR Disaster Pertaining to Hydrocarbon Sector in collaboration with ONGC, Ahmadabad Asset, Gujarat, 15 April 2021

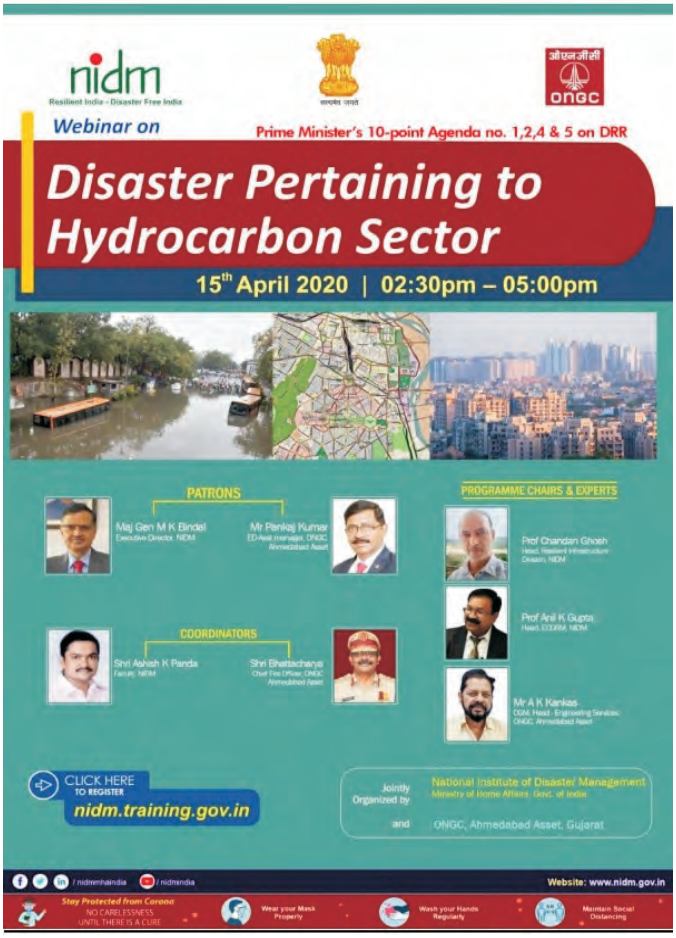
Key Takeaway/Recommendations

a) Safety and health management is one of the vital constituents of Oil and Gas industry activities because most of the operational conditions, chemicals and end products (hydrocarbons and other compounds) associated with Oil and Gas production are well-known to pose serious safety and health threats to the workers;

b) Need for an effective occupational safety and health management system that integrates safety and health concerns into a daily routine.

c) People working in Oil and Gas industry are exposed to various risk factors. Continuous monitoring of their working conditions and well-being is essential;

d) Health protocols and periodic medical checkup should be pre-defined and done for every worker depending on the job and work area type to identify possible deviations from the normal health and to confirm that necessary counteractive actions are taken in advance.



e) Workers in Oil and Gas industry are generally susceptible to hazards like vehicle accidents, slips, falls and trips of heavy equipment, explosions, fires in the installations etc.

f) Risk Management Process Crucial for preventing work related injury and illness Identifying the risks, Evaluating and prioritizing the risks, implementing preventive/protective measures to control the risk;

g) Job safety analysis - Process of systematically evaluating certain jobs, tasks, processes or procedures and eliminating or reducing the risks or hazards to As Low as Reasonably Practical (ALARP) in order to protect workers from injury or illness

h) Change management - identification of new hazards, introduction of new equipment/ process, or regulatory needs;

i) Intentional, unintentional anthropogenic and natural threats to the Hydrocarbon Sector, Energy Sector and Transport Sector;

j) Business Continuity Model and the disaster resilience aspect to it, especially in the context of environmental emergencies and health implications of businesses;

Disaster Management Module for PCS Officer of Punjab in collaboration with MGSIPA Punjab, 16 April 2021

Key Takeaway/Recommendations

a) Sensitizing the new batch of PCS officers with various measures of management of disasters.

b) Prepare the new recruits to try out some measures for preparedness for disasters in their place of postings.

c) Prepare an enabling environment in their place of work for taking activities of preparedness and mitigation.

d) Increase in awareness level regarding the provisions of the Act and road map which has been laid down by DM Policy.



PM 10 Pt. Agenda No. 9 on DRR: and SDG: 3 & 4 Climate Change and Next Gen Leadership in collaboration with Maris Stella College, Vijayawada, 16 April 2021

Key Takeaway/Recommendations

a) To highlight gap and challenge regarding to climate change in the countries and role of youth leadership in climate change adaptation.

b) To stress on education of the current generation of students around climate change and environmental issues.

c) Need to more focus about interaction of young people with climate change not only through media and school but also through interaction with friends and family.

d) To emphasis on Young People's Coping Strategies Concerning Climate Change.

e) To be focus on more about awareness of climate change among youth in India.

f) Use the power and voice of youth fighting climate change.

g) Develop policies and strategies for taking an active part in the decision-making of local, national and global levels.



Energy Conservation in collaboration with Divisional Administration, Kashmir, 17 April 2021

Key Takeaway/Recommendations

a) Need to sustain the natural resources that are already depleting and use them economically and conserve for our future generations.

b) Water should be used judiciously and methods like rain-water harvesting should be adopted.

c) Need to construct green buildings and conserve energy in our day to day life.

d) Need to incorporate good practices for resource efficiency and optimization use while planning for buildings.

e) Energy efficient building design is location dependent thus it is important to consider the local climate and geology while selecting appropriate design strategies in any area.

f) Energy conservation means using less energy, restricting overuse of energy including industrial, transport, agriculture, domestic use.



PM 10 Point Agenda No. 1 and 4 Social and Behavioural Change Communication in collaboration with IRCS, Delhi, 17 April 2021

Key Takeaway/Recommendations

a) Social & Behavioral Change Communication is an interactive process with communities (as incorporated with a general program) to create custom-fitted messages and methodologies utilizing an assortment of correspondence channels to create positive practices; advance and support individual, network and cultural conduct change; and keep up suitable practices.



b) SBCC will play a significant role in lobbying & advocacy of certain practices. These approaches will support and encourage government and other stakeholders to bring a positive whim among all the citizens for adopting positive behavioral practices

c) Social stigma in the context of health is the negative association between a person or group of people who share certain characteristics and a specific disease. In an outbreak, this may mean people are labeled, stereotyped, discriminated against, treated separately, and/or experience loss of status because of a perceived link with a disease.

d) Stigma can undermine social cohesion and prompt possible social isolation of groups, which might contribute to a situation where the virus is more, not less, likely to spread. This can result in more severe health problems and difficulties controlling a disease outbreak.

e) Social and behavior change communication programs (SBCC) use the most powerful and fundamental human interaction communication to positively influence these social dimensions of health and well-being.

f) SBCC has therefore been acknowledged as a key element of any crisis or emergency preparedness plan, and should be integrated in all stages of an emergency response from prevention and preparedness through to crisis response and recovery.

Disaster Psycho-Social Care in collaboration with Pryag India Gurugram Haryana, 19 April 2021



Key Takeaway/Recommendations

a) Ability to deal or overcome the stress/ problem lies within inner self of people.

b) Need to reach out to others, talk with friends, teachers, social workers to increase our knowledge level to deal with the issue.

c) During staying at home, various measures such as quality family time, yoga exercises, sharing relevant information from authentic source and connecting people with their loved ones are few measures to help other family members to have enabling environment.

d) Increase in awareness level is the need of the hour.

Community Awareness and Vaccination Management in Pandemics in collaboration with Acharya Arts and Science College Uruvaiyar Rd, Achariyapuram, Puducherry, 22 April 2021

Key Takeaway/Recommendations

a) Vaccines prepare our immune systems to create proteins that fight disease, known as 'antibodies', just as would happen when we are exposed to a disease but crucially vaccines work without making us sick. Vaccinated people are protected from getting the disease in question and passing on the pathogen, breaking any chains of transmission.



b) Vaccines are developed through three phases: Phase 1 where testing for safety and dosage is being done. Phase 2 focuses on expanded safety trials and phase 3 for large scale efficacy tests. After the completion of three phases, vaccines are being authorized and granted a license by the drug regulation authorities based on stringent analysis and data on safety and efficacy trials. After the approval and obtaining clearance from the regulatory bodies, vaccines are introduced in any country.

c) Vaccines are usually tested in adults first, and only later assessed in children when safety has been proven in adults, because children are still developing and growing. COVID-19 has also been a more serious and dangerous disease among older people. Now that the vaccines have been determined to be safe for adults, they are being studied in children.

d) As of now, it's important to keep on continuing the COVID behaviors. One can stop wearing mask only when the majority of the population has got the disease, received the vaccine or achieved herd immunity. It is important to understand that vaccination only ensures that the vaccinated individual does not get the 'disease'. Vaccination will not prevent infection. A vaccinated person may still get infected and transmit the virus although he/she does/does not suffer from the disease

e) Herd immunity is the indirect protection from an infectious disease that happens when a population is immune either through vaccination or immunity developed through the previous infection. Herd immunity, also known as 'population immunity', is the indirect protection from an infectious disease that happens when a population is immune either through vaccination or immunity developed through the previous infection.

f) COVID-19 vaccines are safe for most people 18 years and older, including those with pre-existing conditions of any kind, including auto-immune disorders. These conditions include hypertension, diabetes, asthma, pulmonary, liver and kidney disease, as well as chronic infections that are stable and controlled.

PM 10 Point Agenda No. 1,5, & 8 on DRR Disaster Risk and Tourism Sector in collaboration with J&K Emergency Operation Centre Srinagar, 22 April 2021

Key Takeaway/Recommendations

a) Development of a strong network among government and various agencies, which would work towards remarketing Kashmir tourism on modern basis.

b) Identifying new tourist spots will go a long way in enhancing tourism potential of the valley.

c) Jammu and Kashmir tourism needs enough measures to provide proper security to tourists so that a sense of safeness will be felt by the tourists.



d) Jammu and Kashmir is one of the best destinations with regard to some new areas which include Adventure tourism, Medical tourism, polo tourism etc, which needs to be explored and thus giving a new sense of hope to tourism.

e) Tourism should be shifted from being a seasonal commotion to all year around activity. Proper tourism marketing of each season can increase the tourist activity manifold

f) Tourism is the life line of Jammu and Kashmir and all possible efforts need to be undertaken for retaining, maintaining and sustaining it.

g) Tourism opens up new window for resources, both investment generation and revenue generation leading to employment generation as well as socioeconomic development of the local populace.

Prime Minister's 10 Point agenda No. 1,8 & 9 on DRR COVID-19 Resurgence & Way Forward in collaboration with Safdurjung Hospital, New Delhi, 22 April 2021

Key Takeaway/Recommendations

a) First Wave of Covid weaned due to strict adherence to safety guidelines and that infected persons

still had their immunity intact. Second wave, everything got disarrayed because of our carelessness and many mutant variants of virus;



b) In the second phase attack of covid, it has been observed the youths and health workers are getting affected. Youths are vulnerable due to their careless life style. Health workers are more prone to threat due to long duty hours, exposure due to inadequate safety kits and lack of rest/replacement due to shortage of staff and increased number of patients;

c) Myth about Remdisivir Injection - It is only an antiviral drug, to be administered into the patient only by a medical professional after so advised by a Doctor. It is not cure to covid but only helps in certain cases. Accordingly people should shy away from buying it and storing it at home as it aggravates black marketing and also deprives the needy patients its doses;

d) Through regular exercise one should keep ones health under control. One recent study by Britain shows inter-linkages of heavy weight (specially below 40 yrs age) and possibility of covid infection;

e) How the Prone Position (oxygen enhancement exercise) can help patients enhance their oxygen level and may not be required to be hospitalized;

f) Positivity rates can be significantly dropped through personal hygiene, self imposed lockdown, regular wear of mask, hand sanitization and by avoiding crowded places by the community. India may not have herd immunity for long and hence everybody should try to get vaccinated in time.

g) India and South Africa have urged WTO members to temporarily suspend rules on Intellectual Property Rights on vaccines and other medical supplies as it would be the most equitable way to fight the pandemic. America and European Union have given their consent in this regard;

h) We have been complacent about the threat of the second wave of covid. As it seems now, it might affect our GDP to go down from expected 11% to 9%. Elections, rallies, mass gatherings, faith gatherings in the name of festivals and religions, social gatherings for marriage, party etc. have only helped the 2nd Wave to grow further. We need to learn lessons from it.

PM 10 Point Agenda No. 9 SDG 3 & 4 Wash in Covid Times in collaboration with Saraswati Narayanan College, Madurai, 22 April 2021

Key Takeaway/Recommendations



a) To increase participants understanding of the evidence linking WASH and health outcomes

b) To strengthen participants understanding of existing standards and guidelines for WASH infrastructure

c) To simulate hygiene response within the wider Covid-19 outbreak and response.

d) Comprises the mechanisms by which a government sets out its vision for the sector (policy) and determines the legal framework for achieving that vision (legislation)

e) Develop foundation for implementation of policies to achieve universal access to sustainable services. Plans must include costs and details on financing and may involve multiple phases.

f) National planning mechanisms exists aligned to WASH targets and Includes coverage and supporting on-going services

g) Refers to the formal organisational arrangements in a country and its WASH sector; the capacity and resources that each organisation has to perform its role, and the coordination mechanisms amongst the organisations.

Impact of Pandemic on Online Classes Challenges and Resilience for Urban and Rural Schools in collaboration with Centre for the Study of Regional Development School of Social Sciences-III Jawaharlal Nehru University New Delhi, 23 April 2021

Key Takeaway/Recommendations



a) The education system has become more flexible due to the online mode of learning. Online teaching facilitates learning from anywhere, anytime. Even the physically disabled can easily attend the classrooms

b) Adequate public financial resources are allocated for providing access to online educational facilities, in particular, for the students belonging to the economically weaker sections to overcome the prevalent digital divide.

c) Necessary arrangements are made for stable broadband facilities throughout the country for quality online learning along with the provision of earlier broadcast technologies like radio and television for delivering the curriculum.

d) When compared to physical education, online education is more affordable. The parents needn't pay for accommodation, transportation, and food as they attend classes from their own homes. In addition, many educational institutions are offering discounts for online learning, which is a great relief for the students and parents.

e) Educational institutions, not only in metropolises but also in smaller towns and rural and remote areas, are equipped with state-of-the-art ICT (Information and Communication Technologies) facilities for imparting quality online education.

f) Teachers are sufficiently trained for offering online lessons using different digital platforms.

g) Necessary arrangements are made for offering lessons in digital platforms in the vernacular languages of India.

h) Proper methods for assessing the quality of the learners are developed and familiarized among both students and teachers.

i) One of the major stumbling blocks with regard to online learning is the lack of strong and stable internet connections, as the ones conventionally used at homes have either low bandwidth or have exhausted their limits.

j) Now with the commencement of online education, screen time has tremendously increased. Allotting breaks during each session will be a perfect solution for this, and the students get refreshed and can prepare themselves for the next session.

Resurgence of Covid-19: Concerns & Safety of Children (PM 10 Point Agenda: 1,2,8,9 SDG-3) in collaboration with UNICEF India, 24 April 2021

Key Takeaway/Recommendations



a) Protecting children against SARS CoV-2 infection is both an ethical obligation and a practical necessity as the vaccination for children has not been developed yet.

b) Need to show lack of interference with immunity generated by routine childhood vaccinations and keeping children protected against Covid-19

c) Great emphasis should be on build your fortress with healthy lifestyle and nutritional meal along with key components of protection i.e. maintaining social distancing, hand washing and wearing of mask until majority of population is vaccinated and jabs are available for children as well.

d) Need for behavioural changes amongst masses especially rural and less educated population for acceptance of vaccine against Covid-19

e) Preventive measures against Covid-19 should be the prime focus to be introduced within schools if they are planning to reopen

f) Develop Strategies to Control the Pandemic at all level, community need to be educated and play as a major stakeholder in breaking the chain of pandemic.

g) Schools should be reopened only when the local epidemiological parameters are favorable, the administration is equipped with adequate infrastructure and health care facilities, and the stakeholders (teachers, students, parents, and support staff) are prepared for the new normal.

h) Informal learning with psycho-social empowerment and along with living and surviving skills should be encouraged rather than stressful formal learning.

Protecting Children from Natural Disasters (PM 10 Pt agenda no. 9) in collaboration with DM Dav Centenary College, Haryana, 24 April 2021

Key Takeaway/Recommendations



a) Early Intervention and ensuring comprehensive social protection measures (both provisions and access)

b) Identification of 'At Risk' children and families and creating 'SAFE SPACES'

c) Data and Evidences: National, State and grass root level numbers

d) Improve Access to Financial Help/Support

e) Creating decent work for adults ensuring human rights

f) Ensure every child's access to education

g) Strengthen Child Protection Mechanisms

h) Adequate measures to protect child protection service provides, heath and care workers

PM 10 Point Agenda No. 1 on DRR "Disaster & Climate Resilient Infrastructure" Organised by NIDM, 27 April 2021

Key Takeaway/Recommendations



a) Strengthen disaster resilient public and private investments, particularly through: structural, non-structural and functional disaster risk prevention measures in critical facilities, in particular schools and hospitals.

b) Include ways that support and nurture the people in the community

c) Promote the resilience of new and existing critical infrastructure, including hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide life-saving and essential services

d) Consider the relocation of public facilities and infrastructures to areas outside the risk range wherever possible, in the post disaster reconstruction process

e) Infrastructure should help us be more climate proofing and more eco-friendly

f) Approx. 85-90% buildings are vulnerable in case of the major disasters and in terms of the structural safety in India

PM 10 Point Agenda No. 1 & 8 on DRR Disaster Management & Climate Change: Challenges of the Future Solution for Execution (Community Engagement) Organised by NIDM, 27 April 2021

Key Takeaway/Recommendations

a) Climate Change issues and the disasters caused by climatic disturbances of Eastern Gangetic Plain of India were discussed in detail.



b) Atmospheric Lightning Discharge is very frequent, nowadays. People are losing their lives, property, and livelihood because of the disaster caused by Atmospheric Lightning Discharge. The community is not well aware to handle these types of climatic disturbances.

c) Lightning sensors should be installed and community awareness should also be built up by conducting training programs and with the help of local NGOs.

d) Consecutive Dry Days (CDD) is increasing in Bihar and Uttar Pradesh which means that these areas are in a deficit of rainfall influencing the agricultural production of these regions.

e) Intense Drought Areas (IDA) pockets are under the meteorological droughts in regions of Bihar, West Bengal and Uttar Pradesh.

f) Meteorological variables of rainfall, humidity, and temperature are related to the diseases of Japanese Encephalitis, Acute Encephalitis Syndrome, and Malaria in Bihar.

g) Rising sea levels are shrinking the cities and causing severe disasters related to climate change.

h) Scientific, participatory and community participation and stewardship approach are the three pivots of Climate Change Adaptation or Resilience.

i) Extreme rainfall events and temperature increase are adversely affecting the agricultural production.

Pandemic Resilience & Challenges in Research Scholars Community in collaboration with Centre for the Study of Regional Development School of Social Sciences-III Jawaharlal Nehru University New Delhi, 28 April 2021

Key Takeaway/Recommendations



a) Various activities like admission, examinations, entrance tests, competitive examinations conducted by various boards/schools/ colleges/universities are postponed due to the pandemic. The primary challenge was to continue the teaching-learning process when students, faculties and staff could no longer be physically present on the campuses.

b) HEIs started conducting orientation programmes, induction meetings and counseling classes with the help of different e-conferencing tools like Google Meet, Skype, Youtube live, Facebook live, WebEx etc. to provide support services to the students. The teachers and students improved the use of electronic media for sharing information by making use of WhatsApp, Google Drive, Telegram, Twitter etc. Students are advised to submit the scanned copies of the assignments to the institution through email. Institutions have also started receiving internship reports and projects through email during the lockdown for Covid-19

c) Covid-19 has both negative and positive impacts on research. If we take the negative side, it has made impossible for researchers to travel and work together with others nationally and internationally. Some joint research work or project work are made complicated to complete. Some scientific laboratory testing/research work could not be conducted.

d) If we look at the positive side, academicians got much time to improve their theoretical research work. Academicians got acquainted with technological methods and improved their research. Webinars and e-conferences became normal methods for sharing expertise among students and academicians around the globe with similar issues.

e) The cancellation of assessments has negative impact on students' learning. Many institutions have been managing the internal assessments through online mode using different digital tools but the postponement of the external assessments, has a direct impact on the educational and occupational future of students' life. This uncertainty has created anxiety among students as they are stuck in the same grade/class without promotion.

f) The HEIs have responded positively and adopted various strategies to face the crisis during the pandemic. The MHRD and University Grants Commission (UGC) have made several arrangements by lunching of many virtual platforms with online depositories, e-books and other online teaching/learning materials, educational channels through Direct to Home TV, Radios for students to continue their learning.

PM 10 Point Agenda No. 1, 8, 9 on DRR Cultural Heritage and Tourism: Revitalisation and Building Resilience amid the second Wave of Covid-19 in collaboration, 28 April 2021

Key Takeaway/Recommendations

a) Developing a comprehensive recovery plan involving all the stakeholders including the Ministry of Tourism, Ministry of Culture and Archaeological Department is the way forward.

b) Embracing digital technologies and creating virtual programmes by the cultural heritage bodies has come across as one of the major recommendations.

c) The process of transforming to digital platform is presently ad-hoc and needs to be regulated by Government for ensuring cyber-security.



d) The need for curation of local experience through heritage tourism and setting up of local museums has been realized with the restricted travel norms during the pandemic.

e) Recommendation of policy and incentives like investment subsidy, tax relief reforms, in-centivization of licenses and permits, etc. to boost and mainstream heritage tourism in the country.

f) The deliberations stressed on the need for social protection of the artists and workforce involved in this sector.

g) Museum resilience planning and capacity development programmes have also been recommended for mainstreaming DRR in the sector of cultural heritage.

h) Framework for governance and finance of organizations/institutions of cultural heritage needs to be reviewed in light of COVID-19 to deal with the changing operations.

i) Cultural heritage institutions need to act as a platform for entertainment and mental relief during the pandemic.

j) Cultural Heritage Institutions needs to embrace new roles during the pandemic like conducting virtual sessions on public health awareness, mental health, etc. through cultural performances and art forms.

k) Formation of sub-national museum boards has been suggested for resource-sharing and better functioning of museums as public institutions.

Covid-19 Appropriate Behaviour in collaboration with Divisional Administration, Kashmir J&K State Emergency Operation Centre and Govt. Medical, College, Srinagar, 28 April 2021

Key Takeaway/Recommendations

a) Testing and contact tracing should be done for all travelers.

b) Society has a responsibility to prevent the spread of the corona virus by following the basic guidelines and SOPs issued by the Govt, which include wearing face masks, maintaining physical distance, washing hands and getting vaccinated.

c) The second wave is more devastating because of our behaviour towards COVID-19.

d) Online consultation has been started by doctors for patients and stressed on the need to establish dedicated hospitals for non-COVID patients.

e) One of the main reasons for the spike in cases was due to the unregulated festivals and rallies which were organised without adherence to COVID protocols.

f) Need to adhere to COVID guidelines and SOPs, while offering prayers, in congregation.



Food and Nutritional Security in Changing Climate and Disaster Scenario, 29 April 2021

Key Takeaway/Recommendations

a) Considering the impact of droughts of different intensities, there is a need to develop climate-smart crop varieties and also, region-specific crop varieties for food and nutrition security

b) Use of technology at all levels can improve the flow 10 of information at all levels for the various pillars of food and nutrition security. At the production stage: Increased use of Information Technology to better inform farmer in terms of crops, rainfall and soil health, especially through customized mobile apps and tools in local languages



c) Nutrition should be clearly stated as an important input and output parameter for judging development and should not be treated as trickle down beneficiary of economic and industrial development.

d) House-hold food and nutrition security through decentralized, nutritionally oriented cropping pattern, homestead production of nutrient-dense vegetables, fruits, and animal products–poultry, dairy, fishery.

e) Climate change affects all dimensions of food security and nutrition. Changes in climatic conditions have already affected the production of some staple crops, and future climate change threatens to exacerbate.

f) The net impacts of climate change on food security and nutrition depend on the magnitude of the climate change effects themselves, and on the underlying vulnerabilities of food systems.

g) Changes in pre-harvest food consumption practices and migration may be sensitive indicators for temporal food insecurity.

Community Awareness and Vaccination Management in Pandemics for tribal communities in collaboration with Acharya Arts and Science College Uruvaiyar Rd, Achariyapuram, Puducherry, 29 April 2021



Key Takeaway/Recommendations

a) Most people understand that vaccines can help protect against infectious diseases, but the benefits don't stop there. In addition to helping to protect an individual, vaccines can also save families time and money; protect communities, and even future generations.

b) Several challenges have been reported in administering vaccinations in rural areas. Some people are reluctant to be vaccinated while others claim that they need to travel long distances to reach a health centre.

c) The villagers believe that the virus cannot infect Adivasi people. There is a need to sensitise communities about the importance of the vaccine in the fight against COVID-19.

d) In tribal areas, one of the biggest challenges is the information gap. To counter this, there is a need to created posters, leaflets and animated videos in local dialects busting myths about the novel corona virus.

e) The tribal community can be sensitized by launching an awareness and resilience-building programme. The emphasis should be on capacity building of tribal youths and local civil society organizations

f) Youth volunteers within the age group of 22-35 years belonging to Scheduled Tribes have been identified and trained under the initiative. The volunteer should belong to a Scheduled Tribe and be fluent in local dialects, with a passion for community development.

g) From a long-term perspective, we need to strengthen the food and nutritional security of tribal people. A robust and comprehensive social protection mechanism will minimize the socio-economic impact of the pandemic.

Disaster Psycho-Social Care with Spl. Reference to College Students in collaboration with Hindu Kanya Maha Vidyalaya Dhariwal, Gurdaspus, Punjab, 29 April 2021



Key Takeaway/Recommendations

a) People should strengthen their self-belief in order to provide enabling environment and positivity around them, which will help fighting the stress.

b) Need to reach out to others, increase our knowledge level and adhere to the guidelines provided from time to time by Government agencies to deal with the issue.

c) During staying at home, various measures such as quality family time, yoga exercises, sharing relevant information from authentic source and connecting people with their loved ones are few measures to help other family members to have enabling environment.

d) Filtering out the information flow to the benefit of oneself is the need of the hour

Hospital Management during Covid-19 Surge Organised by NIDM, 29 April 2021

Key Takeaway/Recommendations

a) Non-linear transition of disaster risk management in context of pandemic is seen where; subsequent waves differ from earlier ones.

b) India has the highest number of cases after COVID pandemic where hospitals got affected from hazards.

c) Situation remained grim in terms of hospital management in Delhi NCR due to lack of oxygen facilities at hospitals.

d) India did not push for more vaccinations which lead to many severe cases during second wave.

e) Telemedicine and other technology should be used to minimize the interaction of patient and staff.



Disaster Management Act 2005 in collaboration with UILS Punjab University Chandigarh, 30 April 2021

Key Takeaway/Recommendations

a) Awareness about the Disaster Management Act 2005 is a must in order to have a better implementation of it.

b) The rights and duties envisaged in the Act must be followed in its true letter and spirits.

c) Importance of the Act with its implementation during present pandemic times has been well established.

d) Act must be seen alongside the inter-linkages of various authorities and nodal ministries/ departments.



Forest Fires: Exploring the Solutions in collaboration with CECCSD, IMPRI, 30 April 2021

Key Takeaway/Recommendations

a) Need for recognizing forest fires as disasters

b) Coordination problems between the Authorities & the Communities

c) Need for effective micro-zone planning

d) Cooperation with Local Communities



e) Importance of the Multi-hazard Planning

f) Provide necessary incentives to the community

g) Fill the required administrative positions

h) Create awareness about fire management in the community

i) Demystify the technical aspects of forest management such as mapping and early warning systems

Prime Minister's 10 Point Agenda No. 9 Early Recovery from M6.4 Assam Earthquake, April 28, 2021 in collaboration with Assam Engineering College, Guwahati and NEHU, Shillong, 4 May 2021

Key Takeaway/Recommendations



a) There is an active zone for earthquakes at the depth of approx. 10-20km near the meeting junction of MBT and Kopili Fault which created many earthquakes in the past as well.

b) The intensity of earthquake depends on the type of material/soil/lithology it passes hence for hills it is seem to increase faster than alluvial plains.

c) The construction practices should be economic and engineered following all the building bylaws of the state.

d) Need to match ground scenarios with the local scale maps to make use of seismic micro-zonation maps etc.

e) ASDMA, NDRF and Fire Dept. officers with the team of engineers were the first to respond and inspect the situation.

f) Many structural and non-structural damages were reported some of which were mainly due to non-engineered construction based on comfort and not safety.

g) Owner driven initiative is required however it needs consultations and awareness.

PM 10 Point Agenda No. 1, 3 & 8 on DRR Covid-19 Management & Way Forward in collaboration with Indian Red Cross Society, Nainital, and All India Women Conference, Nainital, 4 May 2021

Key Takeaway/Recommendations



a) Pandemic Status of local community in the Kumaun Region of Uttarakhand, specially the Nainital, Haldwani, Almora and Bazpur region and how the State and Local Government are coming forward to provide Medicare and assistance to the grieved population there;

b) Importance of lockdown, need to follow safety guidelines earnestly, isolation, quarantine, hygiene, physical and mental immunity etc.;

c) Community being the first responder, their awareness issues and role of women self help groups in assisting the local government in curbing the menace of Pandemic in Uttarakhand;

d) How to avoid rumor mongering, importance of collecting and spreading right kind of authentic information from reliable sources to avoid spread panic among the masses;

e) International Assistance being accepted by India, Pandemic being global we are not safe till any country remains affected by this biological disaster, cooperation in the field of development of vaccine and future R&D in the field of genome structuring and mutation capabilities of virus etc;

f) Black marketing of essential drugs, oxygen etc., Essential Commodities Act and relevant Penalties, role of local community to identify and report such rackets, avoid panic buying and hoarding of things which might be essential for other needy people;

g) In a 14 days cycle of being positive and getting recovered, the 5-8 Day position is very critical with regard to SOP2 concentration. Oxygen level should not go below 92 and doctors consultation is necessary otherwise;

Socio economic impact of Pandemic on island tourism in collaboration with Andaman College, 6 May 2021

Key Takeaway/Recommendations

a) COVID-19 and associated mitigation measures have disrupted small-scale fishery (SSF) supply chains.

b) Tourism is one of the sectors most affected by the Covid-19 pandemic, impacting economies, livelihoods, public services and opportunities on all continents. All parts of its vast value chain have been affected.

c) The sudden, deep and likely prolonged downturn in the travel and tourism sector has made countries that rely heavily on foreign tourism very concerned about their finances.



d) Foreign reserves are generally low, with many of the SIDS possessing only the reserves sufficient for a few months of imports. Given these statistics, it is evident that without international assistance, the economic consequences of the pandemic will be devastating for many of the SIDS.

e) While governments all over the world have announced fiscal measures totaling $8 trillion to combat the pandemic, the international community has also mobilized funds through international financial institutions to counteract the economic crisis in the most vulnerable countries.

f) The International Monetary Fund (IMF) created a $50 billion fund through its rapid-disbursing emergency financing facilities for low-income and emerging market countries. It has earmarked $10 billion to serve its poorest members with a zero-interest rate. Regional banks have also created response facilities aimed at financially supporting their members.

g) Airlines, tour operators, travel agents, attraction sites, car hire, restaurants and hotels have been adversely impacted. All businesses and service providers along the tourism value chain including the farmer who supplies vegetables to a restaurant and a taxi driver who shuttles tourists from the airport to hotels are affected.

h) Due to Covid-19 tourist's arrival declined which has serious consequences on the livelihood of islands. With its traditional economic sectors, such as coconut farming and fisheries experiencing a major crisis, the region desperately needs economic reforms. The structural, logistical, and human resources development approaches can counter the ill effect of Covid-19.

Disaster Psycho-social Care with spl. ref. to college students in collaboration with Sikkim Government College, Burtuk, Gangtok, East Sikkim, 6 May 2021

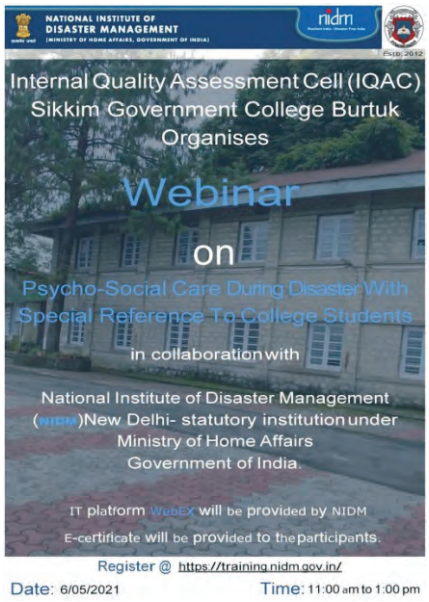
Key Takeaway/Recommendations

a) Positive surrounding environment and attitude helps increase the ability to deal or overcome the stress/ problem.

b) We need to reach out to others, talk with friends, teachers, social workers to increase our awareness about ways to identify and knowledge level to deal with the issue.

c) During staying at home, various measures such as quality family time, yoga exercises, sharing relevant information from authentic source and connecting people with their loved ones are few measures to help other family members to have enabling environment.

d) Support of every stakeholder is must in bringing back the psycho-social survivor in his/ her original stature.



PM 10 Point Agenda No. 1, 8 & 9 on DRR Urban Heat Wave and Management in collaboration with Integrated Institute of Disaster Management, Tamil Nadu, 9 May 2021

Key Takeaway/Recommendations

a) India has been urbanizing at a very fast rate. A United Nations report on population estimates that India's urban population will take over its rural population by 2050. In 20 Year Times, Indian cities will have to accommodate 250 million more people into it, which is equivalent to 11 Australia.

b) Heat Cramps: Ederna (swelling) and Syncope (fainting) generally accompanied by fever below 39°C i.e.102°F.

c) Heat Exhaustion: fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.

d) Heat Stroke: body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potentially fatal condition.

e) Concrete, Asphalt, Black and dark materials, Geometry of Buildings, Blocking of Wind, Pollutants don't get place to disperse, Lack of vegetation and water bodies



f) (Building Material and Technological promotion Council) BMPTC developing Higher Albedo Construction Materials.

g) Breeding strategies getting disturbed in animals (Changing natural selection process). Water Thermal Pollution – Shock to fishes and water species. Altering local wind pattern, cloud and fog pattern, precipitation changes.

h) IIT Khadagpur Study - 44 Indian cities with a population of more than a million - Urban built-up areas are taking longer to shed heat, despite having greenery in surrounding rural or suburban areas. Mapping of the surface urban heat island intensity, or SUHII, from 2000 to 2017, across all seasons.

i) India launched a comprehensive Cooling Action Plan, Green City Concept (Cooler, shaded spaces, Build green infrastructure improvements, Plant trees and other vegetation, Build green roofs etc.), National Mission on Sustainable Habitat.

Issues of Women & Children in Resurgence of Covid-19 (PM 10 Point Agenda No. 3 & 9, SDG- 3,4&5) organised by NIDM South Campus, 11 May 2021

Key Takeaway/Recommendations

a) Building a strong political commitment to applying a gender perspective to policy responses, allowing arbitration of economic, social and environmental priorities

b) Ensuring that basic health care services, in particular related to reproductive and sexual health (including pre- and post-natal health care

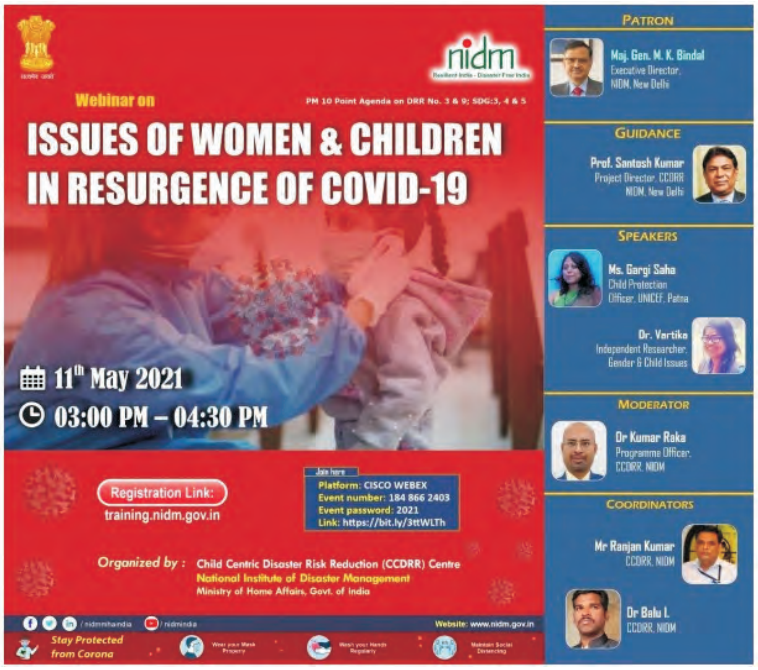
c) Integrating gender impact assessment processes and tools in emergency management.

d) Stepping up measures to increase the role and numbers of women and women's agencies in decision-making processes, including around prevention and response to COVID-19.

e) Ensuring that all policy and structural adjustments to support sustainable recovery go through robust gender and intersectional analysis.

f) Ensuring access to basic services and supporting measures for the most marginalized groups of women, including rural women, female indigenous minorities and refugees.

g) Ensuring that data collected on the impact of the crisis are systematically sex-disaggregated to measure the effects of the outbreak on SDGs through a gender lens.



Standard Protocol for Confirmed COVID Patients in collaboration with AIIMS, Jodhpur, Rajasthan, 12 May 2021

Key Takeaway/Recommendations



a) Creating awareness and dispelling Myths and Stigma related to Covid-19 needs to be prioritized.

b) Social Media Platforms can be used to share positive experiences by Covid-19 recovered individuals.

c) Seek psycho-social support from peers, community health workers, and counselor. If required seek mental health support service.

d) Participation in sessions of Yoga, Meditation etc. while taking all due precautions like physical distancing, masks and Hand hygiene

e) Local authorities should prepare a line list of all private ambulance service providers in their respective areas. These ambulances should be linked with centralized call centre so as to ensure adequate number of ambulances based on population and time to care approach.

f) Real time or Conventional RT-PCR test (or any other test approved for diagnosis of COVID-19 by ICMR) is recommended for diagnosis. Rapid Antigen Tests are recommended in specific situation.

g) Standard precautions should always be routinely applied in all areas of health care facilities. Standard precautions include hand hygiene; use of appropriate PPE to avoid direct contact with patients' body fluids, secretions (including respiratory secretions).

h) Those under home isolation shall follow physical distancing, indoor mask use and strict hand hygiene.

PM 10 Point Agenda No. 8 and 9: Forest Fires: Risk Mitigation and Management in Mizoram in collaboration with Centre for Disaster Management Mizoram University, Aizwal, 12 May 2021

Key Takeaway/Recommendations



a) Apart from the protected areas all other forested area in Mizoram are at high risk.90% of forest fires are reported to be human induced and the intensity is increasing with time.

b) Pandemic has also affected the forest clean up drives and increased the forest fire issues this year.

c) Many high resolution satellites like MODIS help in real time monitoring.

d) Lack of community involvement and awareness directly affect the issues of forest fires.

e) Jhum burning restrictions are already applied by state however not implemented or checked everywhere.

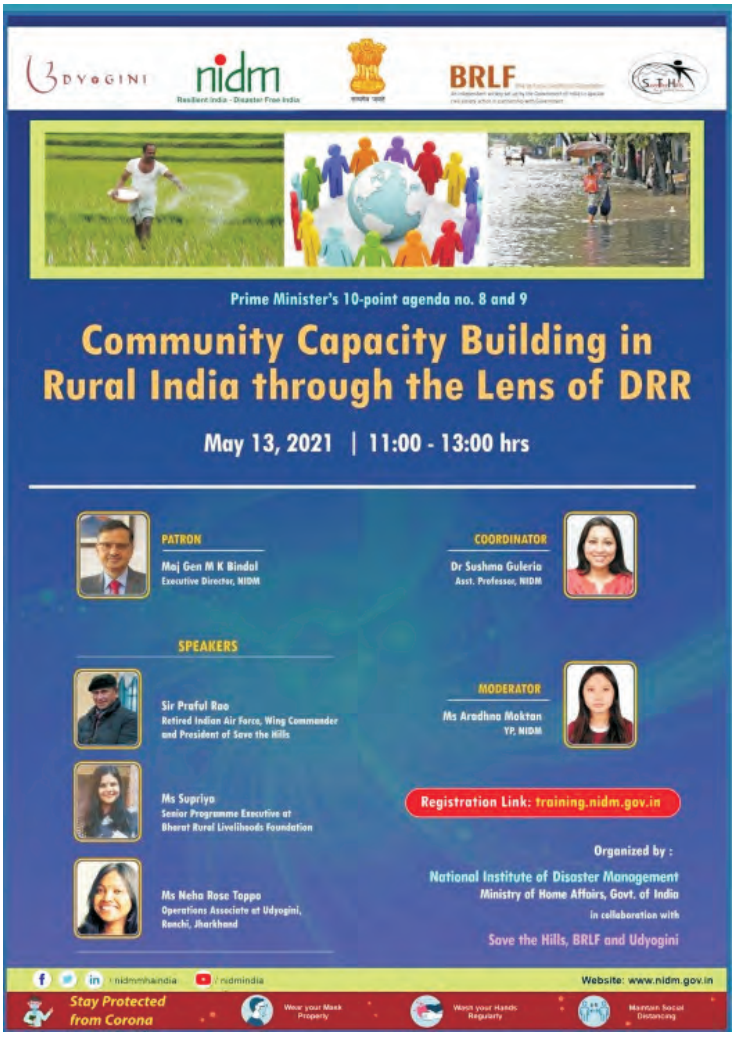
Prime Minister's 10 Point Agenda No. 8 and 9 Community Capacity Building in Rural India through the lens of DRR in Collaboration with Initiation of Save the Hills, Bharat Rural Livelihood Foundation, Udyogini, Jharkhand, 13 May 2021

Key Takeaway/Recommendations

a) Capacity building is understood as the process of strengthening an organization in order to increase its effectiveness and social impact, and achieve its goals and sustainability over time.

b) Case study of NGO working towards raising awareness about landslides in the Darjeeling-Sikkim Himalaya which is one of the most landslide prone areas of the world.

c) Value chain in Jharkhand & livelihood promotion through Lac Cultivation majorly focusing on increased women participation for income generation programme, resulting in improved buying capacity, access to better health services and better living conditions. Improving the overall economic and social status of women was thoroughly discussed.



d) Capacity building enhances an organization's effectiveness to achieve their mission. Efforts can include leadership support, technical assistance, and inter-organizational collaboration. The scope of capacity building is broad and includes education and training, technical assistance, coaching, peer networking and operational support.

e) The webinar highlighted on subjects such as Grassroots implementation, project management including partnership management, and capacity building mainly in the space of Livelihoods.

f) Organizational capacity includes knowledge of the communities in which they are situated, their history, demography, economy and environment. This knowledge, which balances attention to needs and assets, helps align organizational mission and activity.

Alarming Rise of COVID-19 Facts and Challenges in collaboration with AIIMS, Bhopal, MP, 13 May 2021

Key Takeaway/Recommendations



a) Seek psycho-social support from peers, community health workers, and counselor. If required seek mental health support service.

b) To avoid crowing and maintain enough social distancing in office call staff alternatively to office, alter workspaces to maintain physical distancing, ensure ventilation and water systems operate properly

c) Screening of body temperature needs to done strictly for every staff before entering in office which includes temperature and symptom screening, testing for SARS-CoV-2, the virus that causes COVID-19

d) For effective management and communications regular monitoring state and local public health communications about COVID-19 need to be carried out.

e) Encourage sick workers to report symptoms, stay home, and follow CDC guidance

f) Use technology to promote social distancing (e.g., tele-work and virtual meetings) and cancel physical group events to the maximum extend

g) Employees needs to have disposable disinfectant wipes, cleaner, or sprays that are effective against the virus that causes COVID-19

h) Every employees needs to be trained on policies to reduce the spread of SARS-CoV-2, general hygiene, symptoms, what to do if sick, cleaning and disinfection, masks, social distancing, use of PPE, safe work practices, stress management, vaccine and vaccination.

Socio economic impact of Pandemic in fisheries & Coastal ecosystem in Island in collaboration with Andaman College Port Blair, 13 May 2021

Key Takeaway/Recommendations



a) Public health responses to the COVID-19 pandemic and associated measures, from confinement and social distancing to stricter border controls and reduced air traffic, are having significant and complex impacts on the demand and prices for fish products.

b) Social distancing and confinement measures have also led to the closure of many fish markets globally, while trade has been further affected by border closures and significant declines in the availability, and increases in the cost of global air-freight as passenger flights were cancelled. These impacts have created further challenges for the sale of fresh fish products, even where demand still exists domestically and internationally.

c) The reduction in demand for fresh fish products has been accompanied by an increase in demand for canned, frozen and processed fish. The demand for these kinds of shelf-stable fish products has predominantly been driven by an increase in retail sales from supermarkets, and consumer stockpiling (notably in the early stages of the pandemic). Consequently, the processing industry for salmon and whitefish is seeing positive trends compared to the same period last year but only where there have not been disruptions along the supply chain.

d) Restrictive measures against the pandemic, though necessary, are particularly damaging for small-scale fisheries. The sector is crucial to people's nutrition, food security, sustainable livelihoods and wellbeing worldwide as it employs 90% of the people engaged in fisheries (around 36.7 million), with hundreds of millions more engaged indirectly.

e) Small-scale fishers are usually paid on a share basis, which makes them economically vulnerable to the standstill caused by the recent health measures, such as social distancing and closures. In return, this limits their access to a daily income.

f) The continuous need for physical distancing also makes it harder to keep fishing ports and auctions fully operational. This restricts the amount that can be landed, but small-scale fishers need to land daily. In addition, the limited space on board of small vessels can increase health risks for fishers, and consequently for fishing communities.

PM 10 Point Agenda No. 9, Adolescent Health & Psycho-social Concerns amidst Resurgence in collaboration with Sri Meenakshi Govt. Arts College for Women (Autonomous), Madurai, Tamil Nadu, 13 May 2021

Key Takeaway/Recommendations

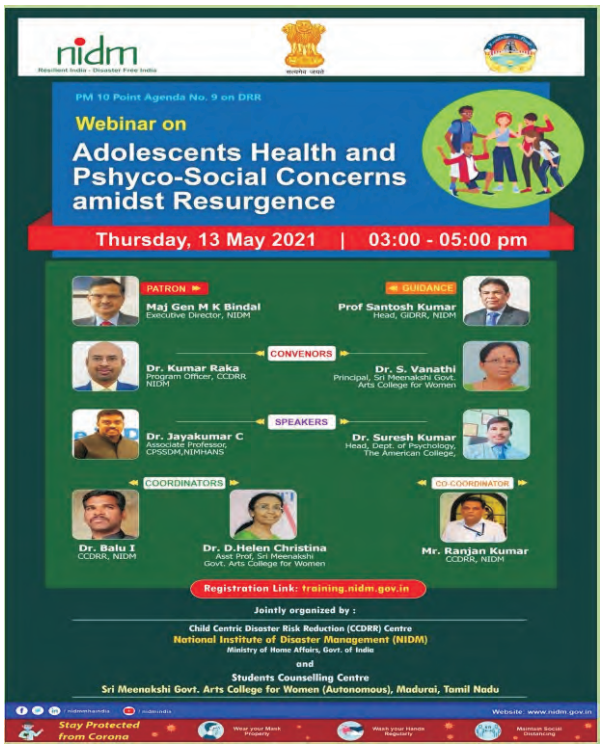
a) Mental health and psychosocial support (MHPSS), is a composite term used to describe any type of local or outside support that aims to protect or promote psychosocial well-being and/or prevent or treat mental disorder.

b) Provision of reliable information on the risk, severity, and progression of a pandemic and the effectiveness of interventions used during a pandemic on an ongoing basis (WHO 2010a, b).

c) Integrating topics of disaster and crisis counselling in training curriculum for health and mental health professionals. Similarly, it is important to build components of technology-assisted counselling and interventions in mental health curricula.

d) Letting individuals know that distress is a normal reaction to an abnormal situation, and that it is okay to talk about it is important.

e) Using effective media to communicate these messages to general public is also equally important.



World Telecommunication and Information Day "Accelerating Digital Transformation in Challenging Times" in collaboration with IEI, J&K SC, 17 May 2021



Key Takeaway/Recommendations

a) The pandemic has accelerated the digital transformation process due to the challenging times and helped improve our efficiency.

b) Digital transformation has created a value system and improved efficiency. Digitally empowered society is the aim of the Govt and it can bring about socio-economic transformation in India.

c) The officers in the field need to ensure that there is no digital divide which can be an impediment and bottleneck, while implementing various policies of the Govt.

d) In COVID-19 Pandemic situation Telecommunication and Digital Transformation is helping in managing crucial data on fatalities, diagnosis, treatment of patients, managing distribution of vaccines or medicines, tele-consultation with medical advisors, e-hospitals and even disseminating government policies and SOPs.

e) ICT tools are an important and integral part of Smart City concept.

f) Fiber optics is the most reliable medium and effective tool for accelerating the digital transformation.

g) A practical demonstration of operation of a HAM Radio and explained the procedure for obtaining an Amateur radio License.

PM 10 Point Agenda No. 3 & 9 on DRR & SDG: 3, 4 & 5, Pregnancy Childbirth and Breast Feeding Amongst Covid-19 Organised by NIDM South Campus, 19 May 2021



Key Takeaway/Recommendations

a) To exercise preventive measure for respiratory hygiene and maintaining hygiene while purchasing, cooking and storing food by self and food handlers at home.

b) Be alert for danger signs of COVID or any obstetric emergency and seek care.

c) To involve proper nutrition intake in pregnancy during COVID-19

d) To promote breastfeeding awareness programme within Community for growth and development of new born children.

e) Strengthen all socio-economic settings, breastfeeding improves survival of the babies

f) Emphasis on breast feeding for life-long health & development advantages to new-borns/ infants for better improvement the health of mothers.

Use of Science and Technology in Early Warning Disasters in collaboration with North Eastern Space Application Centre and St. Anthony College, Meghalaya, 20 May 2021



Key Takeaway/Recommendations

a) Science and Technology institutions such as NE-SAC and CSIR-NIEST along with universities and colleges like Guwahati University and St. Anthony's College have an important role to play in risk reduction activities and must come forward for undertaking risk reduction activities.

b) Future collaborative training and awareness programme with the involvement of students and scholars of the University may be conducted.

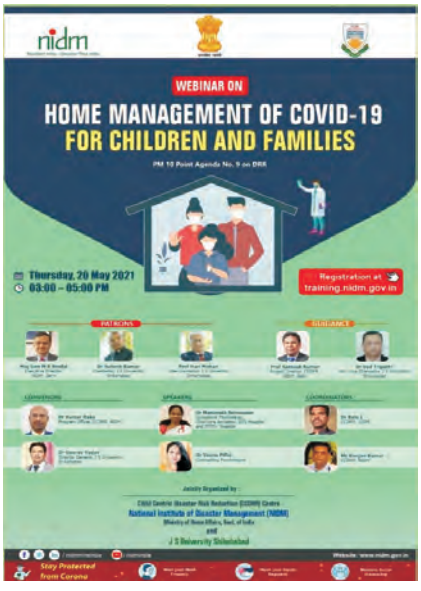
c) Disaster Management Plan within the University and other institutions must be prepared and drilled.

d) The use of science and technology must be acknowledged and such studies encouraged and confidence must be shown to science and the scientist.

e) Need for data driven approach in disaster management with strong component of research and understanding.

f) There should be committees in every institution for engaging people in disaster risk management and having public awareness program for people out of the institution.

Home Management of Covid-19 for Children and Families (PM 10 Point Agenda no. 9) in collaboration with J S University Shikohabad, 20 May 2021



Key Takeaway/Recommendations

a) The sick person should stay in a separate room. If this is not possible then keep at least 1m distance from them.

b) The sick person or anywhere else in the room should wear medical mask.

c) Provide ventilation in the room of ill person and shared spaces and open windows if possible and safe to do so

d) Any Child who has symptoms suggestive of Covid-19 should wear a medical mask, as long as they can tolerate it.

e) The child should be isolated and medical advice sought as soon as they start to feel unwell, even if symptoms are mild.

f) Children should follow the same principles as adults, for wearing masks.

g) This includes cleaning hands at least 20 sec if using an alcohol based hand rub, or at least 40 sec if using soap and water before putting on mask.

h) Make sure the mask is the right size to cover nose, mouth and chin.

i) Children should be taught how to wear the mask properly, including not touching the front of the mask and not pulling it under the chin or in to their mouth

Community Based Initiatives in Response of Covid-19 in collaboration with Sphere India, 21 May 2021 1

Key Takeaway/Recommendations



a) CBCP (Community-Based COVID-19 Protocols) - 14 points framework is being developed.

b) The lack of personal touch is a major challenge during community outreach.

c) Anticipation of the disease makes people more anxious and worried.

d) Innovative Community Initiatives are the most beneficial such as concentrator banks, Oxygen langar, etc.

e) Physical distancing should have been the common word in rural India, rather than social distancing.

f) Odisha and many north-eastern states have quarantine centres in every village.

g) Learning's from one pandemic/disaster should be taken forward for mitigating other disasters as well.

h) The second wave has hit people personally and everyone has had the willingness to do something for society e.g.: Students came up with volunteer groups and initiatives, the IT sector also played a vital role through their own skills, etc.

i) Tele-consultation should be now given more attention for reaching out to all corners and through this even stigma can be accessed through early counseling.

Impact of Pandemic on Sundarbans in collaboration with Shahid Matangi Hazra Govt. College for Women, 23 May 2021

Key Takeaway/Recommendations



a) The pandemic has caused severe damage to the functioning of the economy and people, especially those engaged in the informal sector have been severely affected. Their economic conditions have worsened due to loss of livelihood and a lack of alternative sources of survival. This webinar took note of the relatively minimalist lifestyle of the tribal population and addressed the concerns of deprivation and emphasized the need to develop sustainable livelihood patterns among the tribal's in Sundarbans.

b) Cyclone Amphan being associated with very high-intensity winds, storm-water surges, tidal inundation, saline water invasion and flash floods caused irreversible damage to the biodiversity and people dependent on the fragile landscape for life and threatening livelihood regeneration activities.

c) West Bengal Forest Directorate and The World Wildlife Fund (WWF) have joined forces to distribute hygiene and food supplies around the Islands to tackle the aftermath of COVID-19 and Cyclone Amphan.

d) To address the worsening tiger issue, Rapid Response Facility along with The WWF is working to

create several miles of nylon net fencing to separate tiger and human populations from negative interactions.

e) WWF is also working with the community at the grassroots level for a more climate-sustainable future that fosters the islands' ecosystem.

f) The Sundarbans face a multitude of challenges. Its residents have experienced the effects of climate change firsthand. Community-led innovation with the help of the government and other key organizations is crucial for a disaster-ready future for the islanders.

g) Despite all these, the practitioners and policymakers need to develop a holistic disaster mitigation report to understand the degree of ecological disaster caused by the cyclone. There is need to develop the sustainable Sundarban ecosystem among the new challenges.

PM 10 Point Agenda No. 1 Physical and Mental Well Being During Pandemic in collaboration with Sri Sri University Cuttack, Odisha, 24 May 2021

Key Takeaway/Recommendations



a) Both physical and mental wellbeing are crucial to face the pandemic.

b) Physical wellbeing can be maintained through regular exercises, healthy eating habits, adequate rest etc.

c) Mental wellbeing can be restored through yogic techniques, having some 'me' time, minimizing exposure to gadgets, spending time with family and friends, positive thoughts etc.

d) Physical health, mental peace and emotional resilience enhance the overall wellbeing and make an individual capable to gracefully handle any challenges in life.

e) Women and Mental Stress: - In order to deal with the challenges, women can create a support system, take adequate rest, find time for exercise and learn to be comfortable with uncertainties.

f) To provide women equity in the society, we will have to facilitate them little more so that they feel free for not only equal participation but for leadership opportunities in decision making and programmes for their own upliftment.

g) During this pandemic our children should not be neglected. Parents should strengthen their bonding, establish positive relationship, create a sense of belongingness, encourage the child to thrive and flourish, promote healthy eating habits, encourage good physical health, and encourage the child to utilize the time in a constructive way.

h) Art of Living: - Control over five important elements like body, breath, mind, intellect and memory. Five keys that are relevant to restore the mental wellbeing - equanimity, acceptance, indifference, forgive & forget, and living in the present moment.

Earthquake and Fire Safety in Industrial Establishments, 24 May 2021

Key Takeaway/Recommendations

a) Full Scale mock drills need to be conducted so that those Industries which fall under the category 3 and category 4 earthquake zones may be sensitized for Earthquake and Fire Safety Preparedness.

b) Earthquake Resistant Design of Pipelines need to be undertaken for effective Earthquake and Fire Safety Preparedness

c) Need to train hundreds of below MAH categories Hazardous factories and unorganized sector dealing with numerous and complex levels of disaster risks. Proper policy and planning need to be done for Earthquake and Fire Risk in those industries.

d) Since industrial disasters are very low in frequency but is very significant in terms of loss of life, property damage, injuries, environmental impact and property damage.



(e) Need to work out better policies through mutual aid and proper co-ordination.

Clean Air Programs in Delhi-NCR and India: To Mitigate Invisible Health Disaster, 25 May 2021

Key Takeaway/Recommendations

a) Indoor air pollution is as serious an issue as the outdoor air pollution and therefore there is a dire need of implementing mitigation approaches addressing all the aspects of air pollution.

b) Delhi's drainage: A total of 220km of drains fall into the river Yamuna which is responsible for emitting thousands of liters of hydrogen sulfide, ammonia, methane, esters, carbon monoxide, sulfur dioxide and nitrogen oxides. Exposure of low to high levels of these chemicals can severe health issues.



c) Air traffic pollution: As per the data, around 1000 aircrafts flying in a day are releasing 6, 45,000 kg to 25, 80,000 kg of CO_2 in to the atmosphere. Unnecessary travel can be avoided to save atmosphere from being loaded from pollutants directly.

d) Air pollution can be greatly reduced by following practices suggested by NITI Ayog viz. Control industrial and power emissions, reform regulatory framework, implement emissions trading, utilize crop residue, implement waste management policy, tackle city dust and construction, address clean cooking and forest fires, adopt targets and monitor and limit vehicular emissions.

e) A great lesson can be learnt from the huge success of Montreal Protocol which phased out the use of ozone-depleting substances from refrigeration and other products. As a result, since 2000 ozone layer has started to heal and with current progress rates, by 2060 the entire ozone layer might heal.

f) The air quality situation is so alarming that, even though there were significant reductions in pollutant concentrations during COVID lockdown times at local levels, but the overall concentrations of these pollutants remain unaltered in the atmosphere.

g) Local emissions can play a very crucial role in governing the overall air quality of the atmosphere but only when they are continued be controlled and monitored over longer durations. For example, addressing the problem of stubble burning in Punjab locally can help improve the air quality in Delhi-NCR and adjoining regions.

Prime Minister's 10 Point Agenda No. 1 Vaccination, Myths and Clarity in collaboration With Isabela Thoburn College, Lucknow, 25 May 2021

Key Takeaway/Recommendations



a) Vaccines work to prime immune system against future "attacks" by a particular disease. When a pathogen enters body, immune system generates antibodies to try to fight it off. Depending on the strength of immune response and how effectively the antibodies fight off the pathogen, one may or may not get sick. If one falls ill, however, some of the antibodies that are created will remain in body playing watchdog after you're no longer sick. If one is exposed to the same pathogen in the future, the antibodies will "recognize" it and fight it off.

b) Individual immune systems, however, are different enough that in some cases, a person's immune system will not generate an adequate response. As a result, he or she will not be effectively protected after immunization.

c) Every vaccine has potential side effects. Typically they are very mild: soreness at the injection site (for a vaccine delivered via a shot), headaches, and low-grade fevers are examples of common vaccine side effects. Serious side effects are possible, however, including severe allergic reactions (extremely rare though).

d) Herd immunity (community immunity) - Protection offered to everyone in a community by high vaccination rates. With enough people immunized against a given disease, it's difficult for the disease to gain a foothold in the community. This offers some protection to those who are unable to receive vaccinations including newborns and individuals with chronic illnesses by reducing the likelihood of an outbreak that could expose them to the disease.

e) Infants' immune systems can handle receiving many vaccines at once more than the number currently recommended. The immunization schedule is based on infants' ability to generate immune responses, as well as when they are at risk of certain illnesses.

f) Vaccines that are made with killed versions of pathogens or with only a part of the pathogen are not able to cause illness. When a person receives these vaccines, it is impossible for him or her to become ill with the disease.

g) Improved hygiene and nutrition, among other factors, can certainly lower the incidence of some diseases. Data documenting the number of cases of a disease before and after the introduction of a vaccine, however, demonstrate that vaccines are overwhelmingly responsible for the largest drops in disease rates.

Methodological Challenges in Assessing the Socio Economic Losses and Damages from Climate Change in India in collaboration with IIT, Tirupati, 25 May 2021

Key Takeaway/Recommendations



a) HEALS index consists Health, Education, Agri-Livelihoods, Living Amenities, Safe housing or Shelter Economic loss and damages by climate change factors

b) Understating the risk and approaches to mitigate the disasters Methodological challenges in calculating ELD and NLED

c) Quantifying NLED impacts and compare with economic impacts, prioritize risk reduction (adaption) measures with high potential to address NLED impacts and provide guidance for integrating NLED into risk reduction decision Multi-criteria methodologies such as cost-benefit analysis, cost-effectiveness analysis and Analytical hierarchy process.

d) Damages and losses due to climate change effects particularly by hydro metrological disasters PDNA for developing the recovery framework

e) Importance of the coordination with the international partners for Disaster Risk Reduction (DRR).

PM 10 Point Agenda No. 1, 5, 6 & 9; SDG:3, 4 & 5 Workshop on Continuity of Education: A Major Challenges in 2nd Surge in collaboration with UNICEF India, Save the Children, 26 May 2021

Key Takeaway/Recommendations



a) Provide effective, flexible and inclusive distance learning programmes such as Digital learning, interactive radio instruction, printed learning materials,

b) Focus on the most marginalized including girl child, the youngest ones, children with disabilities, internally displaced children,

c) To support early learning, mental health and psychosocial support, child protection, and public health objectives and address harmful and adverse gender norms

d) Implement a global Covid-19 education action plan: keep learning alive, continuity of education, channelizing energy of children, support safe return to school, build more resilient education systems

e) To bridge the digital divide the States might consider providing low-cost tablets (learning equipments) to the students to enable them access to digital content and minimize learning loss. The States might also consider providing subsidies for internet data costs for educational purposes, as nearly half of the students seem to need support here.

f) The States can incentivize and monitor all teachers to engage with students over calls/messages as more than half of the teachers are not engaging with students.

Community Based Disaster Management in collaboration with Puducherry Society for Disaster Management, Ariyankuppam, Puducherry, 26 May 2021

Key Takeaway/Recommendations

a) Community as a first responder is well placed for disaster risk reduction and hence lot of focus is required to capacitate them.

b) Involvement of community in crucial activities of management of disasters such as plan preparation, audit of local developmental projects, mock drills of plan, identification of evacuation routes and management of relief shelters to name a few.

c) Future collaborative training and awareness programme may be conducted in their regional languages frequently.

d) Local innovative methods for resilience may also be part of capacity building of the community.



e) Traditional coping mechanism used by community must be strengthened and documented

Mental Health First Aid in Collaboration with J&K, IEI, J&K SC and MSF, 27 May 2021

Key Takeaway/Recommendations

a) Pandemic made us understand how important is to live life in simplicity and reach out to each other.

b) Anyone can help in improving mental health and it does not require medical trainer.

c) It is not a treatment for depression or mental disease but a psychological first aid like initial disaster response.

d) Help yourself or people you care by supporting them which will help them open up.

e) Does not share half knowledge keep you aware of the right information?

f) Follow few calming exercises like breathing or grounding to keep your mental and physical health balanced



Supply Chain Risk Management in collaboration with FICCI, 28 May 2021

Key Takeaway/Recommendations

a) Proper Training is essential for developing the capacity of participants.

b) Proper Training is essential for developing the capacity of participants for Supply Chain risk Management.

c) Its critical to have a plan to deal with Supply Chain disruptions

d) Mandatory to have resilient and responsive supply chain



e) Training and capacity building to develop a proper risk management strategy

f) Continuous simulating crisis drills.

PM 10 Point Agenda No 5, 8 and 9 Covid to Co-win, 28 May 2021

Key Takeaway/Recommendations



a) COVID-19 infection spread can be done both direct spread of the droplets from infected person and indirect spread by contact with a contaminated surface.

b) Response strategies like transportation of cases and management, ensuring supply of medicines, consumables and testing strategies need to be identified at priority.

c) Dead body management and bio waste disposal need to be taken care off in light of pandemic situation.

d) COVID Vaccination helps immune system to produce antibodies.

e) The combination of vaccination and following protection measures need to hand in hand and COVID appropriate behavior should not be reduced after vaccination.

f) Vaccination dose should be taken usually after three months if any person is already affected from COVID symptoms.

g) Serious side effects are rare from COVID vaccines, some side effects caused show that body is building protection and these side effects should go away in few days.

h) Rather than adding to myths and misconceptions about vaccinations one should talk to the trusted healthcare provider/doctor at earliest.

PM 10 Pt Agenda No. 1,5,6 &9; SDG: 3,4&5 Child Labour & Child Marriage Amidst Resurgence of Covid in collaboration with I-Thought, 28 May 2021

Key Takeaway/Recommendations



a) Affirmative State action through investment in girls education and skill development

b) Strictly implements rights against sexual abuse and other violence

c) Protection from discrimination and right to affirmative action

d) Emphasis on Sexual and Reproductive Health Rights (Malnutrition, anemic, IMR, MMR etc)

e) Strengthening Governance, (Legal and institutional Mechanism)

f) Establish "zero tolerance against child marriage".

g) Position the counter narrative of child marriage as human rights violation among international development community; and to stop justifying articulation of child marriage as culture, tradition or acceptable practice.

h) Create an accountability framework for effective implementation of child right laws in its totality and specially the PCMA, JJ Act, POCSO, ITPA, IPC and laws concerning child protection commission / institutions among others

Enterprise Risk Management: Reimagined in the post Pandemic world in collaboration with RIMS, The Risk Management Society, 28 May 2021

Key Takeaway/Recommendations



a) One of the most important lessons from the past year is that an effective approach to all-hazards planning and procedures must incorporate worst case scenarios.

b) Traditional risk management assumes that actualized threats and acute crises can be managed in every stage of an event using the same command and control protocols throughout the lifecycle of a crisis.

c) Covid and political unrest over the past year have demonstrated in the harshest terms the need to create frameworks and risk management playbooks that are agile, well communicated and understood.

d) Risk managers should have technical skills, soft skills & also attitude of the person of the person matters a lot.

e) Risk manager should have qualities like strategic thinking, ability to influence, collaboration, high learning quotient & thought diversity.

f) Supporting the world's most vulnerable populations through information technological solutions in a post-pandemic environment

g) The impact of the pandemic is pervasive throughout an entire business' operations. ERM tends to focus more on “bottom-up” approaches using risk control self-assessments and less on “top down” assessment

h) To effectively evaluate risk in a pandemic, leaders need to focus on the right metrics and consider all dimensions of risk: severity, likelihood, and velocity.

Post Vaccination Impact on International Border Trading in Sundarbans in collaboration with Shahid Matangi Hazra Govt. College for Women, 29 May 2021

Key Takeaway/Recommendations



a) The disruption caused by COVID-19 has had real and disproportionate consequences on vulnerable and disadvantaged low-income households, migrants, workers in the informal sector and, often, women.

b) COVID-19 pandemic could cause a food crisis in developing countries through both supply-side and demand-side channels. Restrictions on movement due to the pandemic have slowed

down economic activity, potentially affecting food production and reducing food supply.

c) Demand-side problems seem to be the more important potential source of food insecurity in many developing countries. In particular, the loss of income resulting from restrictions on movement is likely to be a critical demand-side factor

d) Smuggling and illegal trading which had reportedly increased during the peak covid will reduce due to increased security or police presence.

e) Both India and Bangladesh must identify the alternates for sustainable regional development in the Sundarban region amid the emerging challenges and resilience in sustainable trading

f) Due to various restrictions and procedural difficulties, it would be difficult to do tests of such a high population that generally keeps moving from here to there. The chances of further escalating of the cases due to un-identification of cases.

g) Further, it would be a challenge for the administration to understand the pandemic risk of migrant works amid the unlock process.

Disaster Risk Reduction & Resilience in Hydrocarbon Sector in collaboration with Oil India Limited, Duliajan, Assam, 31 May 2021- 1 June 2021

Key Takeaway/Recommendations



a) Promote multi-sectoral coordination mechanisms that bring together all local agencies and organizations to reduce health risks and consequences of emergencies and disasters.

b) Need to develop systematic approach for handling DRR.

c) Need to integrate DRM by all the development sectors to enhance disaster risk reduction and resilience.

d) Enhancing the capacity of stakeholders engaged in the hydrocarbon sector

e) Lessons learnt from the past incidents to be included during review of the DMP

f) Site specific DMP to be prepared & communicated to concerned personnel to avoid any delay in mitigation of emergency.

g) Need of prior training for effective performance of IRS.

h) In IRS proper communication, efficient use of available resources and communication plan needs to be prioritized.

i) Safety audits, design and pre-modification review, emergency planning, proper storage, public awareness, site specific strategies, practices disaster prevention during normal period needs to be prioritized in hydrocarbon sector to reduce disaster risks

Covid Crisis Lessons: Planning Health Resilience for 3rd Wave and Beyond in collaboration with DSPSR, Delhi, 4 June 2021



Key Takeaway/Recommendations

a) The discourse revolved around that how environmental health dimensions, environmental pollution, social and cultural dimensions, behavioural dimensions influence governance decision making and planning at local level, state and national level.

b) Need for everyone to get vaccinated was highlighted, as it will provide the resilience to cope up with the vaccine.

c) Need for getting the vulnerable sections of the society, such as beggars, transgender, drug dependents, vaccinated on priority basis.

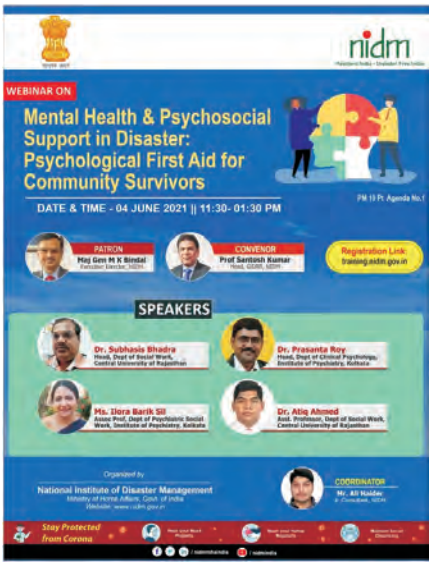
d) Need to now inculcate a habit of doing exercises, taking nutrients and constantly remind ourselves that we are adopting COVID appropriate behaviour.

e) Finally, to avert the next wave, it is crucial for governments to communicate a clear and strong message that even if the numbers are low, the pandemic is still not over and the public must remain cautious and prepared to return to distancing measures if numbers begin to rise. This message must be echoed by the highest leadership.

f) Air pollution in India is not only alarming but it is another "crisis" that India is facing which requires government, policy-makers, scientists and civil society to come together to mitigate, and asserted "we need to count on the support of the public in this".

g) Specific solutions were provided with regard to transport, road dust control, crop residue burning, etc.

PM 10 Point agenda No. 1 Mental Health & Psychosocial Support in Disaster: Psychological First Aid for Community Survivors Organised by NIDM, 4 June 2021



Key Takeaway/Recommendations

a) Myths and stigmatization around psychological problems should come to an end.

b) Mental health is associated with much of one's past experiences and present realities.

c) 95-97% of people who are affected psychologically recover without active intervention, they just require the Psychological First Aid and 3-5% of them may require the professional long-term support to get recovered.

d) Physical activity reduces the vulnerability, make the people resilient and increase the coping capacity against mental health issues.

e) Exercise and a good amount of sleep increase the immunity and heal the mental health damages.

f) Need to create the Psychological Volunteers/Influencers into the community to spread the positive vibes.

g) The person who is suffering from mental health issues should be treated by using five essential elements of Psychological First Aid, that are safety, calming, connectedness, self-efficacy and hope.

h) Interventions: Breathing/muscle relaxation exercise, mindfulness, 3 minutes breathing space, panic control techniques, sleep hygiene, trauma-focused approach and cognitive restricting to dispute and modify irrational thoughts and maladaptive interpretations.

i) Volunteers training required to provide support in terms of active listening, active understanding, reassurance of strengths available within and promote resiliency and active & positive coping.

j) A resilient community can respond to crises in ways that strengthen community bonds, resources and the community's capacity to cope.

Special Event on the EVE of World Environment Day and Launch of UN DECADE on Ecosystem Restoration Panel Discussion on Ecosystem Restoration: Reversing Risk into Sustainability in collaboration with IGNOU, 4 June 2021

Key Takeaway/Recommendations

a) There has been a conflict between ecology and economics in which focus is more on economics and ecology takes a back seat. Effort should be made to create awareness amongst people to realize that ecology is fundamental. Social and economic development could not be realized without ecological development.



b) There has been steady decline in forest cover. There is a need for creation of more forest. Effort should be made to save the native species. Natural ecosystems should be popularised amongst people so that they can be restored.

c) We should always try to find nature-based solutions for various environment related problems. Biological waste management system should be adopted.

d) The various grass species should be planted at different heights of hilly and mountainous region for conserving soil.

e) Society needs to include full value of natural capital in decision-making to eliminate environmentally harmful subsidies and invest in the transition to a sustainable future.

f) Restoration of ecosystem is a great concern. It should be a continuous process. Degraded ecosystem should be restored by applying traditional knowledge system along with existing scientific knowledge. According to UNEP every Dollar invested in ecosystem restoration creates 30 Dollars' worth of economic activities.

g) Efforts should be made so that no new land should be degraded. Ecosystem Restoration is a process to realize the three pillars of sustainable development i.e. economic, social and environment in general and improving livelihood and human wellbeing in specific.

Ecosystem -Based Disaster Risk Reduction and Resilience Organised by NIDM, 5 June 2021

Key Takeaway/Recommendations



a) Need to ensure that Eco-DRR and Eco-system based approaches (EbA) are institutionalized to obtain enduring influence. For this more multi-level spaces for cross learning are needed to integrate perspectives and maximize impacts in policy at all levels.

b) Engagement of local stakeholders in decision-making needs to be promoted and encouraged in every Eco-system based DRR.

c) Strengthening of collaborative, participatory and multilevel governance across sectors and procedures for nature-based solutions which can offer decentralized mechanisms that are managed by and for communities.

d) Technical capacity building is required for local actors who play a leading role in promoting and implementing nature-based solutions (NBs).

e) Need of improvement of scientific knowledge and effective communication on nature-based solutions to strengthen decision-making and mobilise resources for implementation.

f) Ecosystem-based adaptation should be used as a tool for strengthening flood resilience in the country.

g) Enhancement of governance capacities for ecosystem-based DRR through multi-sector, multi-disciplinary platforms needs to be prioritized.

h) Natural water retention measures should be suggested for flood risk management which is the part of the ecosystem-based approach.

i) Combining investments in ecosystems with other effective DRR strategies can play important role in achieving India's SDGs goal

Eco System Restoration and Eco-DRR on the Occasion of World Environment Day in collaboration with Amity University, 5 June 2021

Key Takeaway/Recommendations



a) World Environment Day: - Observed on June 5 every year with the purpose to spread awareness about the threat to the environment due to rising pollution levels and climate change.

b) Theme of 47th World Environment Day: - Ecosystem Restoration as tackling climate change and the loss of species is crucial to the restoration of ecosystems. Pakistan is the host country this year and will host the programme with UNEP.

c) Ecosystem restoration: - Assisting in the recovery of ecosystems that have been degraded or destroyed, as well as conserving the ecosystems that are still intact. Healthier ecosystems, with richer biodiversity, yield greater benefits such as more fertile soils, bigger yields of timber and fish, and larger stores of greenhouse gases.

d) Between now and 2030, the restoration of 350 million hectares of degraded terrestrial and aquatic ecosystems could generate US$9 trillion in ecosystem services. It could also remove 13 to 26 gig tons of greenhouse gases from the atmosphere.

e) The economic benefits exceed 9 times the cost of investment, whereas inaction is at least 3 times more costly than ecosystem restoration. Re-imagining Conservation for ensuring human wellbeing.

f) Ecosystem based DRR and Adaptation in practice: - Environmentally Sustainable, Cost Effective and Socially & Economically responsible.

g) BONN Challenge: - India is a party. Global effort to bring 150 million Ha of deforested and degraded global land into restoration by 2020 and 350 million Ha by 2030. 68.35 Ha of Indian Land is Waste Land that can be restored and made available for agriculture and vegetation.

h) Restoration of Jharkhand's Piparwar Opencast Coal Mine Area:- After mining stopped in 2020, Central Coalfields Limited, under Indian Mines Act, started reclaiming the area by restoring it back to forest area through plantation, drip irrigation, constructing water bodies and developing a Kaya Kalp Vatika (Eco Park) there.

Ecosystem Restoration for Improved Relationship with Nature in Collaboration with J&K, IEI, J&K, SC, 5 June 2021

Key Takeaway/Recommendations



a) Massive deforestation and excavation of land for constructing roads, deep inside forests have caused loss of biodiversity and increased disasters.

b) Awareness generation, capacity building and Disaster Management issues are associated with the fragile ecosystem.

c) GDP is dependent on natural resources and nature provides everything for sustenance, thus it is imperative for everyone to play a part in the restoration of the ecosystem.

d) There is a sense of urgency to save the planet as destruction to the environment is visible, in the form of loss of biodiversity, increased air, water & noise pollution.

e) Reduce the consumption of firewood for heating purposes, by installing solar water heaters, to reduce Carbon emissions, reduce pressure on forests and promote clean operational technology use and make use of wood-briquettes and waste-wood.

f) Need to frame an eco-restoration plan to safeguard the glaciers and mountain ecosystem.

g) The indicators of environmental degradation are evident and have increased vulnerability to disasters.

h) Institutional mechanisms need to be strengthened with community involvement. Educational institutions can play a very important role in spreading the message of sustainability of the ecosystems

Mainstreaming DRR into Film Making in collaboration with Satyajit Ray Film and Television Institute, Kolkata, 8 June 2021

Key Takeaway/Recommendations



a) SRFTI was established in 1995, and registered as a Society on 18 August 1995 under the West Bengal Societies Registration Act, 1961, and is an autonomous society funded by Ministry of Information and Broadcasting, Government of India. It has been named after acclaimed Indian film director, Satyajit Ray.

b) Professionally produced videos are important for documentation, donor communications and public relations, while more informal video production can be an important means of tapping into indigenous knowledge, stimulating local creativity, sharing stories, and disseminating peer-to-peer education. In the case of participatory video, the production process itself becomes an educational experience, with the primary objective being to stimulate local dialogue and problem solving.

c) The production stage consists in gathering all raw materials that will be used to compose the Film. It includes for example selecting the archive material, producing the animation material, filming interviews or other video material, recording voice over and soundtrack.

d) Broadcasting media, because of its speed and ability to cover a wide area, is an important sector of mass media for providing natural disaster information. Natural disaster information is directly connected to lives and property. A wide variety of information is passed on to citizens and society.

e) There is a broad continuum in audio and video production. At one end are professionally produced, pre-scripted products where the messages are highly controlled. At the other end are participatory videos, which are individually or collectively produced with more spontaneously captured material using inexpensive video cameras and recording devices.

f) Social media includes all of those online tools that permit people to communicate and network without needing traditional organizational support and it is important to tell a story in Audio Visual perspective in case of DRR.

Training on India Disaster Resource Network (IDRN), 9 June 2021

Key Takeaway/Recommendations



a) Master list of PSU industry name wise selection needs to be integrated on IDRN portal.

b) PSUs/private industries are not aware whether District authorizes uploaded the data or not, for confirmation of updation needs to be automated.

c) Inventory item data entry update excel sheet uploading options needs to be integrated on IDRN portal.

d) IDRN website may be modified to make the process paperless and smooth. PSUs/Private industry may upload data on IDRN website online, data flows to DM, DM verifies and approves it online by clicking 'approved' button and the data gets uploaded on the IDRN website.

e) Auto generated emails may also be provided for reminder, if data is overdue for updation.

f) NDMA to regularly write to all District authorities for confirmation on uploading of data on IDRN website.

g) Shelf life of equipment to be increased to 3 years from current 1 year and that of consumables to One year from current six months.

h) Inventory items description needs to be displayed while selection of inventory items updation.

Fungal Infection and Corona virus: Prevention Management in collaboration with Department of Geography University of Rajasthan, 11 June 2021

Key Takeaway/Recommendations



a) A fungus is a tiny organism, such as mold or mildew. Fungi are everywhere in the air and water and on the human body. About half of fungi are harmful. If one of the harmful fungi lands on your skin, it can cause a fungal infection.

b) People with reduced immune response are more susceptible to this infection. Conditions that reduce our immunity include: diabetes, steroids medication, blood malignancies, patients on immune suppressants, patients with excess iron or taking deferoxamine (specifically used in iron overdose), trauma, burns, and malnourished people.

c) The combined risks of COVID-19 and mucormycosis (black fungus) raise challenging issues and require careful coordination of patient care and treatment.

d) Mucormycosis is a rare type of fungal infection that occurs through exposure to fungi called mucormycetes. These fungi commonly occur in the environment, particularly in leaves, soil, compost, and animal dung. Mucormycetes can enter the body through breathing, inhaling, and exposed wounds in the skin.

e) COVID-19 leads to a weakened immune system, preventing the body from effectively protecting against infection. As a result, individuals recovering from COVID-19 are at risk for fungal infection.

f) Green fungus, also known as Aspergillosis, is an infection caused by Aspergillus, which is a common mould. People can get infected by aspergillosis by breathing in microscopic Aspergillus spores from the environment.

g) The fungal infection can be prevented By maintaining good hygiene, oral and physical cleanliness, avoiding areas with a lot of dust and stored contaminated water, Avoiding activities that involve close contact with soil or dust, washing face and hands well with soap and water, usage of long pants, full sleeves, shoes and gloves recommended while gardening and healthy and nutritious diet to build immunity.

Environment & Land use Issues in Disaster Risk Reduction in collaboration with BCIPS, Delhi, 11 June 2021

Key Takeaway/Recommendations

a) Introduction to remote sensing- An instrument that records an object or surface without coming in physical contact.

b) Characteristics of remotely sensing imagery- Spatial resolution, Temporal resolution, and Spectral resolution

c) Characteristics of types of disasters- Spatial (location and extent, distance from source, scale of object damage), Spectral (surface material, distribution, tone pattern), Temporal (length of event, possible repeats, delayed effects)

d) Stages in remote sensing- Pixels, colors and digital number, Identification of object, EMS - Electromagnetic Spectrum, Thermal RS image, Footprint maps

e) Why remote sensing data is important for disaster management- Monitor the hazard in real time, Assess the damage, Provide relief.

f) Remote sensing contribution in disaster management- Disaster prevention, preparedness, relief, recovery.



Role of Cyber Security Technology in Disaster Management System in collaboration with Sri Sri University, Odisha, 11 June 2021

Key Takeaway/Recommendations

a) Discussed about the Cyber and physical disaster and emphasis was laid on the recent merging of cyber security and disaster management without our realization.

b) The death toll is decreasing during the disasters because of the gradual improvement of the cyber infrastructure which provides better predictions.

c) The world has now started to become “Physital” (Physical and Digital).

d) A concern was raised on the commonality, mutuality and cascading domino effect of the cyber-attack and how it can amplify the natural/physical disaster.



e) The risk will be a permanent factor associated with the natural or cyber disaster. While, technology provides the only backup. Sharing responsibility between various stakeholders such as the citizen, entrepreneurs, academicians and Government will reduce the impact of the physical as well as cyber disaster.

f) The data gap in the Indian context is a major hindrance to create a predictive model for disaster management.

g) An extensive detail was provided of the cyberspace, privacy, networking, identity, fake news, data, loopholes, attitude of the person using the internet, mistakes, oversharing in social media and privacy settings. The safety rules should be taken into consideration while using internets and password management.

h) The role of technology is extremely important in managing the industry, sewage system, etc. but at the same time there are possible threats to mankind due to the cyber-attacks to these systems.

PM 10 Point Agenda No. 1,5,6&9: SDG: 3,4,&5 Covid-19 Third Wave & Children: Facts, Emerging Trends and Challenges in collaboration with DIYA, 12 June 2021

Key Takeaway/Recommendations



a) Learnt a lesson from the horrors of the second wave and began preparing for a possible third wave

b) Need Integrate monitoring epidemic-prone diseases in the part of the Integrated Disease Surveillance Programme.

c) Protocol in line of Children treatment need to be developed for larger number of urban and rural children.

d) Need to more focus on continuity of appropriate behaviour among children, women and community for preparedness for a possible third waves.

e) Consider feeling and voices of children for well being and safety of children and reducing the impact of pandemic on children such as mental illness stress and trauma

f) Explore the possibility and opportunity about the strengthening the health infrastructure at bottom to top level.

g) Need to provide training and capacity building Aganwadi, Asha & ANM workers for strengthen local level health system for providing quality of health services to larger community.

h) Infrastructure development and capacity building of the ASHAs and anganwadi remains the key to improving the programme and reaching out last mile connectivity, the standards of all its services also need to be upscaled.

i) Need to develop protocol/advisory and guideline for essential medicine and need to strengthen drug control system for operationalization.

j) Need to consider cascading effect of disaster and incorporate appropriate behavior guideline in recovery and rehabilitation process among affected people.

PM 10 Point Agenda No. 8 and 9 124th Anniversary of Great Shillong Earthquake of June 12, 1987: Earthquake Risk Preparedness in North East India in collaboration with NEHU, Shillong, 12 June 2021

Key Takeaway/Recommendations



a) RCC structures are highly vulnerable in the hilly regions due to mostly being un-engineered unplanned construction.

b) Safety of lifeline buildings from earthquakes should be must such as hospitals and schools and should be taken up by state level authorities.

c) Long term risk reduction strategies are the need for preparedness against earthquakes.

d) Building Codes are not up to date for the hilly regions of our country.

e) Lack of codes for safety of equipments and services in lifeline structures.

f) Proper training and disciple should be imbibed as fundamental step so that people can both listen and act.

g) There should be regular interactions may be kept at 12 June where all seven NE states should promote preparedness and help each other

Building Rural & Indigenous Women's Resilience & Livelihood in the wake of COVID-19 in collaboration with Chaintanya, Area Networking and Development Initiatives (ANANDI), 14 June 2021

Key Takeaway/Recommendations



a) Empowerment of women involves many things- economic opportunity, social equality and personal rights. Women are deprived of these human rights, often as a matter of tradition. In rural areas, women are generally not perceived to have any meaningful income generation capacity, and hence, they are relegated mainly to household duties and cheap labour. Without the power to work and earn a good income, their voices are silenced.

b) SHGs in India are small, economically homogeneous and affinity groups of poor people. The members come together to save some money regularly by mutually agreeing to contribute to a common fund.

c) Self-help Promoting institutions (SHPIs) are organizations, may be government (such as Mission Shakti in Odisha, Kudumbashri in Kerala, Nationalized Banks etc.) or non-government (such as NGOs, Microfinance Institutions, Gram Sabha, Private banks, etc.), which not only promote the formulation of SHGs but also help the SHGs sustain by providing or helping those getting loans, capacity building training, marketing support of the products etc.

d) Earlier very few women were attending the political gatherings. Now they are doing it in large numbers being persuaded by the local leaders for members are obliged to the government for the seed money they obtained from Mission Shakti to start the group. The leaders want to prove that their policies helped the women to come out of the boundary of their home to participate in the economic, social and political activities, which previously were considered to fall in the male domain.

e) Training programmes need to be organized for the farmers' collective on participatory planning, decision making, crop choice, method of farming with the help of eminent resource persons. Such training programmes can help women learn some practical skills like preparation of different bio inputs and with continuous support and guidance, the women farmer's collective can gain necessary skills on agriculture, improving their decision making capacities and leadership qualities.

f) Plan and act collectively for food security and sustainable livelihoods, addressing gender discrimination in use, control and ownership of resource and increasing access to public goods & services.

Hazard Risk Vulnerability and Capacity Analysis Workshop for Development of Disaster Management Plan of Ministry of Environment Forest and Climate Change in collaboration with Ministry of Environment, Forest & Climate Change, 14 June 2021

Key Takeaway/Recommendations



a) Provided an overview of key elements of vulnerability which the environment sector faces such as exposure, sensitivities and adaptive capacity.

b) Highlighted the clarity of purpose of Hazard Risk Vulnerability and Capacity Analysis and also on what information to be filled in the template.

c) The importance of HRVCA in drafting the Disaster Management Plan of any sector or Ministry or Department of Government of India.

d) When hazard strikes at vulnerable areas or amidst vulnerable population, it leads to disasters and pose risk to the affected area, population as well as environment. At this juncture, the capacity or resources available within the area or with the population help them cope with or reduce this risk

Prime Minister's 10 Point Agenda No. 1 on DRR Food Safety in Disasters in collaboration with Food Science & Technology, University of Kashmir, 15 June 2021

Key Takeaway/Recommendations



a) A Multi-disciplinary and multi-international group's needs to frame for critical analyze and then pool our ideas and inputs and hardcore research component that also need to be identified.

b) No matter what is the type of disaster and what are the feeding modalities adopted, food safety always remains a concern during such eventualities. It is owing to the fact that the availability of food is limited, utilities, supplies, water, transport, and electricity are disrupted, severely compromising hygiene and food safety.

c) During and following natural disasters, particularly floods and tsunamis, food may become contaminated by surface water, silt, dust, gravel, etc. Surface water is the most notorious as it percolates to the last corner. It may itself have been contaminated by pathogenic bacteria from sewage, wastewaters, and dead animals or humans. Therefore, it is important to inspect the food and decide which is good to use.

d) Food safety risks are mainly linked to unsafe food storage, handling and preparation. In many cases cooking may be impossible during natural disasters due to the lack of facilities or fuel. Poor sanitation, including lack of safe water and toilet facilities, can compound the risks.

e) The growing severity and frequency of natural disasters mean the food production industry should put procedures in place that allow the continuation of operations that ensure the production of quality and safe food in the wake of a natural disaster and minimize any additional food safety risks.

f) Despite of having good mechanism in the country there are loop holes in its implementations, many times the flaws come to surface during disasters but sometimes not well reported because of focus of report is usually other things like saving life.

PM 10 Point Agenda No. 5, 8 and 9 Landslide Risk Mitigation in Mizoram collaboration with Dept. of Disaster Management & Rehabilitation Govt. of Mizoram, 15 June 2021

Key Takeaway/Recommendations



a) Strong community participation and targeting local engineers and geologist should be promoted to carry out mitigation measures.

b) Bioengineering solution like using vetiver grass can be used as cost effective and sustainable solution for unstable eroded slopes.

c) Modern technology and real time remote sensing data can help in developing resilient highway slope management system.

d) Field investigations and instrumentation needed for carrying good landslide vulnerability investigation, landslide vulnerability mapping at larger scale and early warning PLIM App for landslide can also be used.

e) Sustainability of infrastructure and safety of people has to be maintained by incorporating slope vulnerability analysis at initial planning stage apart from construction and maintenance phases.

Current Pandemic: Community Crisis and Gender Challenges in Developing Countries in collaboration with The Tamil Nadu Dr. Ambedkar Law University, 16 June 2021

Key Takeaway/Recommendations



a) Women who are poor and marginalized face an even higher risk of COVID-19 transmission and fatalities, loss of livelihood, and increased violence.

b) COVID-19 has amplified women's unpaid work burdens. For example, the widespread closure of schools and childcare facilities has not only increased the amount of time that parents must spend on childcare and child supervision, but also force many to supervise or lead home schooling.

c) Lockdowns and physical distancing measures have also contributed to a disturbing spike in reports of domestic violence, including sexual violence. Staying home is not safe for many women and girls who may be trapped with an abuser.

d) Women are overrepresented in many of the industries hardest hit by COVID-19, such as food service, retail and entertainment.

e) In the new "normal" communities are continuing to face stigmatization and discrimination in

various spaces, including healthcare. There were some cases where Tran persons faced discrimination and stigmatization while accessing services. Sometimes doctors refused to give a Trans woman prescription for a COVID-19 test and sometimes the lab staff members ran away when realized that the patient is a transgender woman.

f) During Pandemic the Trans community faced a lot of stigmatization and ignorance from society. This clearly state that the stigma around gender identity still exists and governments have clearly failed to take measures in addressing these challenges.

Impact of Pandemic and Challenges in Vaccination amongst the in Desert Communities in collaboration with Department of Geography University of Rajasthan, 18 June 2021

Key Takeaway/Recommendations



a) Mobile pastoralists of Rajasthan are struggling to get by in the COVID-19 pandemic and its subsequent lockdowns as the fear and restrictions in the state rise.

b) These pastoralists depend on the farmers and households along their route for the fodder and water of their herds. But since the Indira Gandhi Canal closed down for maintenance, both have been hard and costly to find.

c) The livelihoods of these communities as well as the number of their herds have suffered due to depleting resources; as a result, they have been forced to migrate back to their home bases in just two months.

d) People have evaded shots due to unfounded rumors that vaccines can lead to serious side-effects like impotency and serious diseases.

f) The challenges that volunteers, administrative officials are facing is to convince the tribal population who hold on to their traditional values to accept modern medicine and take vaccine doses.

Jal Shakti-Water Conservation in collaboration with DDMA, 18 June 2021

Key Takeaway/Recommendations

a) India has the dubious distinction of being the world's largest user of groundwater by far, even as the water table has been falling by an average of 0.4 m nationally. Over 70% of surface irrigation water is being simply wasted, nationally. Suboptimal utilization of water infrastructure often results in heavy soil erosion and siltation. MOES report shows a 'significant' drop in rainfall in Uttar Pradesh, Bihar and West Bengal over the past three decades, and rising variability in the monsoons nationwide.



b) People tend to neglect the importance of water conservation because in most places it is free of cost or charged nominally. Rational pricing of water can be put to practice, keeping in mind the affordability of the population in the country.

c) River rejuvenation ought to be a policy priority of the Centre and state governments. Sustainable operations and maintenance of irrigation systems must be boosted. Rainwater harvesting should be incorporated into urban planning.

d) Need to leverage Information Technology to revamp water-related data systems, which seem to be sorely lacking in coverage, efficiency or robustness.

e) Need to follow conservation agriculture i.e. farming practices adapted to the requirements of crops and local conditions. Cultivation of less water intensive crops like pulses, millets and oilseeds should be encouraged in water-stressed regions.

f) Need to emphasis on behavioural change, differentiating of potable and nonpotable water usage by the citizenry will go a long way in bringing a Jan Andolan

g) Groundwater provides for over two-thirds of irrigation requirements. In the last four decades, about 85% of the total addition to irrigation has come from groundwater. This is clearly unsustainable resulting in steep depletion of the groundwater table.

h) Groundwater is used to cultivate water-intensive crops like paddy and sugarcane (promoted by Green revolution) in rain deficit states like Punjab and Maharashtra respectively.

PM 10 Pt Agenda No. 1, 8 & 9; SDG:2, 3 & 5 Food Security and Nutrition of Children Amidst Resurgence in collaboration with Mirza Ghalib College, Gaya Bihar, 18 June 2021

Key Takeaway/Recommendations



a) Maximize maternal, infant and young child nutrition services within the norms of social distancing and Infection control

b) Establish Nutrition surveillance systems jointly with Covid-19 surveillance to detect cases of under nutrition & SAM

c) Need to establish community-based systems for acute malnutrition management for children under 5.

d) Leveraging technology to improve coverage, widening the scope of telemedicine to provide tele-counselling services for vulnerable groups

e) Developing new strategies to train, report, monitor and review remotely

f) All caregivers know and are willing to prepare nutrition dense foods for young children, pregnant women and breastfeeding mothers

g) Prevention including ensuring that children with malnutrition do not worsen

h) Ensure food and primary healthcare, among others, to children below six years of age, and mothers especially those from low-income-families.

Mental Well Being and Need for Behavioral Change Communication in Context to Covid-19 collaboration with MGSIPA, Chandigarh, 19 June 2021

Key Takeaway/Recommendations

a) Mental health is essential to our overall well-being and as important as physical health. When we feel mentally well, we can work productively, enjoy our free time, and contribute actively to our communities

b) Structural factors such as safe living environments, employment, education, freedom from discrimination and violence, and access to economic resources

c) Community factors such as a positive sense of belonging, community connectedness, activities to highlight and embrace diversity, social support, and participation in society



d) Individual factors such as the ability to manage thoughts and cope with stressors and having communication and social skills to support connection with others.

e) Behavior Change Communication (BCC) is a communication strategy which encourages individual/ community to change their behavior.

f) BCC is an interactive process with communities (as incorporated with a general program) to create custom-fitted messages and methodologies utilizing an assortment of correspondence channels to create positive practices; advance and support individual, network and cultural conduct change; and keep up suitable practices.

g) Social and Behavior Change Communication uses communication strategies that are based on behavior science to positively influence knowledge, attitudes and social norms among individuals, institutions and communities.

h) SBCC uses a variety of communication channels to drive and sustain positive behavior among individuals, communities and societies. SBCC employs a systematic process that includes formative research and behavior analysis; communication planning, implementation and monitoring; creating an environment that supports desired outcomes; and evaluation.

Preparation of National Chemicals Disaster Management Plan in collaboration with Department of Chemical and Petrochemicals, Ministry of Chemicals and fertilizers, GOI, 21 June 2021

Key Takeaway/Recommendations



a) Address multi-hazard risk and vulnerabilities

b) Plan will have multilayer approach to resilience building

c) Includes infrastructure/ establishments, resources, people, services and activities of the DCPC and its associated Divisions

d) Addresses disaster safety and resilience of physical assets and resources associated with the sector

e) Ensures assets, property, resources concerning the 'sector' are disaster safe / resilient

f) Activities, services and execution networks of the sector are not jeopardized by a disaster

g) Activities in the sector do not aggravate a disaster hazard or a contributor to vulnerability

h) Activities and resources of the sector help DRM and Emergency Response by it and other sectors

i) DM Plan has sound Integration with International and National Policies/Priorities

PM 10 Point Agenda No. 1 on DRR Personal Financial Management for Disaster Risk Reduction and Resilience in collaboration with Mutual Funds in India (AMFI), SEBI, Mumbai, 23 June 2021

Key Takeaway/Recommendations

a) Need to have financial planning of families in place to face disaster scenario

b) We should first think and ensure adequate life insurance, reasonable medical insurance cover and an emergency fund before embarking upon the journey of wealth creation through sustained investments which is most essential for prosperity

c) Our household finances are not invulnerable to disaster. Just one flood, fire, earthquake or tornado can wipe out a lifetime of savings.

d) Comprehensive financial protection strategies should account for all sources of risk, including hydro meteorological and geophysical hazards, health shocks, cyber security, conflict, famine, and displacement.

e) Comprehensive financial protection strategies should consider how these risks can intersect and create compounding shocks.

f) Though money by itself is never enough and financial resilience needs to be complemented by physical and social resilience reliable and quick financing is necessary for effective disaster response.

g) Advance financial planning, informed by risk analytics and linked to clear actions, is essential for effective preparedness and response. Below are five key lessons on financial protection that could help inform COVID-19 crisis response.

h) An emergency fund is an essential corpus that you must keep aside to tackle emergencies. It is a fund that you can fall back on at the hour of crisis or for unexpected and unplanned scenarios, and not for meeting your routine expenses.



i) Actors in development finance and beyond need to collaborate closely to build back better‖ for a more equitable, sustainable and thus resilient world.

j) Financial markets, the insurance industry, and technology companies can help develop and deploy innovative disaster risk assessment and financing instruments.

PM 10 Point Agenda No. 9 on DRR: Continuity of Education: A Major Challenges in 2nd Surges in collaboration with National Service Scheme (NSS), Campus Units, University of Jammu, 24 June 2021



Key Takeaway/Recommendations

a) Resilience ability in community

b) Role of parents in wellbeing and education of children

c) Parents devote quality time with children

d) Teachers' engagement is must

e) All actions are not appropriate in all contexts, and will have to be contextualized.

f) Also, we need to keep in mind the available resources, local context and practices, and more importantly it should be aligned with the guidelines of local government.

g) Not able to reach out to all the children in our intervention areas

h) Some parents were still hesitant

i) All teachers didn't engage due to their other priorities, COVID duties

j) engage meaningfully & creatively and continue improve and sharpen academic skills

k) make reading and learning materials available for the use of the children

Comprehensive Disaster Risk Reduction in collaboration with L.N. Mithila University, Bihar, 24 June 2021



Key Takeaway/Recommendations

a) The mitigation measures related to disaster must be included into development initiatives and focus must be on pro-active approach.

b) Need for community capacity building in order to increase resilience capacity and manage crises effectively.

c) Need for more interactive and awareness campaigns in the future.

d) Higher Educational Institutions (HEIs) must also participate in disaster preparedness, hazard assessment and vulnerability-based studies.

Risk Audit and Crisis Management in collaboration with FICCI, 25 June 2021

Key Takeaway/Recommendations

a) Proper Training is essential for developing the capacity of participants around risk audit and its management.

b) Need to have Crisis Governance & Leadership

c) Mandatory to have Crisis Management Plan (CMP)

d) Creating Crisis Management Team (CMT)

e) Management to commit resources/ budget for Crisis Management

f) Management should be ready to give away the traditional turf of their area of operations

g) Continuous simulating crisis drills & audits.



Mental Well Being during the current Pandemic in collaboration with Sikkim Directorate of Higher Education Department, 25 June 2021

Key Takeaway/Recommendations

a) Mental wellbeing is an integral part of our overall health. Society often thinks of health as something biological and physical, the condition of our bodies, how healthy we eat, the physical exercise we do. A key component of health is missing from this, though. It's mental wellbeing, which encompasses our inner workings and the way we describe how we are in our lives.

b) Discussion were carried on the changes that occur in people's lives when they are uprooted by a disaster, including many important topics related to humanitarian crises, such as when there is an epidemic a public health emergency or pandemic.

c) Mental wellbeing, in general, is the state of thriving in various areas of life, such as in relationships, at work, play, and more, despite ups and downs. It's the knowledge that we are separate from our problems and the belief that we can handle those problems.

d) Mental wellbeing and all that it encompasses are vital life components in their own right. They're not something that exists as solely the absence of problem



e) Anxiety, depression and other stress-related problems threaten their ability to grow up healthy and happy. Violence can take a lifelong toll on their emotional health, physical health and social development

f) Spirituality is an evitable component of human existence, it relates to something higher power. Human being offered the diverse nomenclature to this higher power. Despite the variety of classification, our relationship with divine power instill the power of life, sense of stability, power, purpose, and a direction

g) Psycho-social needs are considered just as important as physical symptoms. The patient and the family constitute the 'unit' of care. Each person in the family will have needs which must be recognized and met.

Digitization of Learning: Issues and Concerns of Safety and Securities of Children (PM 10 Pt Agenda No. 1,4,8&9; SDG:3&4) in collaboration with DhiVidya Guru, New Delhi, 25 June 2021

Key Takeaway/Recommendations



a) For starters, an increased financial stimulus for education is necessary to allow greater access to online resources for children who may not have any.

b) Need to strengthen schools for rely on and distribute their own digital resources for at-home learning instead of depending on students to have mobile devices at home.

c) Emphasize upon the content and context of digital media use by children, with recommending parents to choose age-appropriate quality content for the child and encourage them to co-share media use with them to improve parent–child interaction and relations.

d) More emphasize on creating media-free routines (e.g., no screen time while eating, at least 30 min before bedtime)

e) Ensuring that the child engages in other non- screen-related behaviors associated with positive development of children (e.g. unstructured play, two-way communication with friends and family in the real world).

f) Incorporates a wide array of activities and interventions with good evidence support for a positive effect on the overall health and well-being of children should be promoted during the COVID-19 times and thereafter.

Prime Minister's 10 Point Agenda No. 1,5 & 8 on DRR Flood Risk Management & Pathways in collaboration with Department of Civil Engineering, Invertis University, Bareilly, UP, 28 June 2021

Key Takeaway/Recommendations



a) Increasing Flood Scenario in India, Erratic Behaviour of Climate and Economic Impact associated with it.

b) The decade 2000-2009 showed a spike in extreme flood events and in associated flood events, which affected almost 473 districts.

c) Events associated with floods such as landslides, heavy rainfall, hailstorms, thunderstorms, and cloudbursts increased by over 20 times.

d) Climate Risk Atlas to map critical vulnerabilities - Coasts, urban heat stress, water stress, and biodiversity collapse.

e) Integrated Emergency Surveillance System; To facilitate a systematic and sustained response to emergencies.

f) Mainstream risk assessment at all levels, including localized, regional, sectoral, cross-sectoral, macro and micro-climatic level.

g) Modeling small-scale cloud dynamics and understanding the exact role of the Bay of Bengal in the monsoon.

h) Flood models don't incorporate sediment dynamics, which play a role in Himalyan river flooding. High sediment loads can reduce capacity of a channel, leading to overtopping of banks.

Lockdown Impact on Public and Government Relations: Challenges and Best Practices in collaboration with The Tamil Nadu Dr. Ambedkar Law University, 28 June 2021

Key Takeaway/Recommendations

a) The impact of the complete lockdown and travel restrictions was devastating both for human beings as well as the economy. Electricity consumption went down to 30% below normal by end March and has remained below normal till August, indicating the severity of the lockdown.



b) The countrywide lockdown to contain the spread of COVID-19 pushed the labor migrants towards a pathetic situation marked by homelessness, hunger and unforeseen human miseries.

c) Due to the suspension public transport facilities, migrants started walking towards their home state on foot. Subsequently, buses and Shramik special trains were permitted by the central government subject to coordination between states.

d) The Aatma Nirbhar Bharat Abhiyaan also launched a scheme for Affordable Rental Housing Complexes for Migrant Workers and Urban Poor to provide affordable rental housing units under PMAY.

e) On March 28, the central government authorized states to use the State Disaster Response Fund to provide accommodation to travelling migrants. States were advised to set up relief camps along highways with medical facilities to ensure people stay in these camps while the lockdown is in place

Disaster Management Plan in Collaboration with Dept. of Geography Punjab University, Chandigarh, 28 June 2021

Key Takeaway/Recommendations

a) Universities must come forward to undertake research study for analyzing the hazard, vulnerability and capacity of their surrounding areas.

b) Universities must engage themselves in creating awareness about disasters in their vicinity.

c) They must take initiative to have their own DM plan department wise and other entities such as hostel, administrative building etc.

d) Universities must also earmark certain amount of funds for disaster preparedness and mitigation activities.

e) Universities must also have close linkages with district authorities and other stakeholders involved in management of disasters



Disaster Management Plan in collaboration with Central University of Karnataka, 29 June 2021

Key Takeaway/Recommendations



a) Institutions of higher education have a clear role in disaster risk reduction process in terms of creating awareness, community team formation, creating environment for training and capacity building of team members.

b) Universities must engage themselves in preparation of DM Plan with the help of stakeholders and be a part of mock drills for evaluation of plans.

c) They must take initiative to have their own DM plan department wise and other entities such as hostel, administrative building etc.

d) Universities must also earmark certain amount of funds for disaster preparedness and mitigation activities.

e) Universities must also have close linkages with district authorities and other stakeholders involved in management of disasters.

Management of Covid-19: Experiences and Initiatives - Are we prepared for 3rd wave? Organised by NIDM, 29 June 2021

Key Takeaway/Recommendations



a) Importance of team work, preparedness, coordination and collaboration from all frontline workers and other stakeholders was found essential in managing pandemic.

b) There is a need to invest in the healthcare system and get ready for future biological disaster in much better way.

c) 85% of the affected COVID patient doesn't require hospitalization. Isolation should be done symptom based not test based.

d) COVID Appropriate behavior should be promoted and rigorously followed by everyone with vaccination.

e) The need of increasing ICU beds and trained staffs should be a priority.

f) Maintenance of proper networking of the all hospitals should be done to lessen the mortality rate among the COVID affected patients

PM 10 Point Agenda No. 9 Covid-19 Second Wave: Impact on Women and Children in collaboration with Aurora's Degree & PG College , Hyderabad, Telangana, 29 June 2021

Key Takeaway/Recommendations

a) A gender-responsive approach to pandemic planning means that gender-based differences and issues are considered in the design of the policy, strategy, plan or programme, and gender equality is promoted in its implementation

b) Separate COVID Care centre for Pregnant Women in Chhattisgarh. Separate Quarantine centres for pregnant women in some states.

c) To identify the needs of men and women, boys and girls from different communities, and assess their capacities and perceptions of risks by engaging them as active participants in the local planning processes

d) Recognizing these challenges, the government and its partners took several social protection measures, notably direct cash transfers, which have directly benefited women. Over 200 million female account holders received monthly cash payments from April to June 2020. Free grains, such as rice, were given to 800 million ration cardholders.

e) Collateral-free lending limits increased from INR one million to INR two million ($13,000 to $26,000) to benefit 6.3 million women-organized self-help groups.



f) The Mahatma Gandhi National Rural Employment Guarantee Program employed about 108 million persons between Aprils – October 2020, providing one-third reservation for women workers. Wages under MGNREGA to be hiked to Rs 202 from Rs 182. The move would bring in Rs 2,000 in addition to workers

g) Under its Ujjawala scheme, the government has provided free LPG refills for three months to over 80 million poor women

h) Nearly 200 million women Jan Dhan account holders received Rs 500 each in their account

Covid-19 Vaccination: Role of NGO's in collaboration with World Vision New Delhi, 30 June 2021

Key Takeaway/Recommendations

a) Coordination is the key to take up issues as vast as management of the pandemic.

b) NGOs by virtue of their placement and nature of work, can work as facilitators to bridge the gap between policy making and its implementation.

c) Right information compilation and its dissemination at right time can avoid creation of panic amongst common masses.

d) Awareness about the cause and risk accrued to it can mitigate many disasters, hence NGOs must engage themselves in such activities within the guidelines issued by administration



Training Program

Industrial Safety & Risk Management: Green Clean & Safe Economy, 05-07 April 2021

Key Takeaway/Recommendations



a) Development of facilitation team at Industrial Association Level on RECP as business model by FICCI/NIDM including experts having expertise in energy, water, material, governance, taxation, environment compliance etc.).

b) Establish cooperation with expert agencies like GCPC, UNIDO, GIZ, STENUM Asia and others expert agencies to support in institutionalize the RECP services to industries.

c) Develop revenue and incentive model at local industrial area level for motivation and financial support in implementing RECP to maximum industries.

d) Development of self-sustained expert team at FICCI/NIDM to initiate and promote RECP in industrial area through GoI support.

e) The ultimate purpose DRR is to save lives, preserve the environment and protect property andtheeconomyofthecountry.Theprotectionoflifeisofutmostimportance.Inthebroadest sense, it raises the understanding of risks and contributes to a safer, sustainable, disaster resilient society.

f) Small and medium scale industry has to be provided significant technical assistance to assess, intervene and demonstrate process / operation specific energy efficiency enhancement gains. These can be substantiated with real life emission reduction. This will be a logical way ahead of historically important waste minimization and cleaner production circles that delivered tangible gains.

g) Detailed reality checks on the limits and limitations of end of pipe treatment and disposal systems are few and far between. Empirical evidences on these correlates are essential to tackle challenges that arise due to little known final environmental fate of complex disruptors. This is essential to overcome compliance cascades that will be applied retrospectively.

h) It will be useful to also adopt the 'Insider Speak' public policy approach to create sector – specific communities of practitioners. It will then be possible to address issues that are not obvious on the surface.

FDP on Urban Disaster Management, 12-14 April 2021

Key Takeaway/Recommendations

a) Urban disaster management concept, significance of urban DRR for a disaster resilient society; Various aspects of Urban DRR & available National & International Frameworks covered in detail;

b) SDG 1,10 & 11 with regard to urban DRR, DRM approach in India and its integration for urban DRR with respect to SFDRR, the Sustainable Development Goals and the Prime Ministers' 10 point agenda, Need for investment in critical infrastructure, Safeguarding natural buffers for ecosystem services, strengthening institutional capacities for resilience & going for societal capacity development for resilience, expedite recovery and Build Back Better (BBB) etc.

c) Various technological interventions, including techniques of Remote Sensing and GIS for mapping urban disasters, its usage in modern decision making by policy makers and programme implementers at ground level;



d) Need for interactive integration of RS & GIS services in areas such as geospatial apps, course curriculum of various study streams, bringing in concept of coloring books for kids to bring awareness in them about these technologies, teacher training program, necessary life skills & school mapping etc.

e) Importance of Early Warning, Climate Risk Modeling Solutions, Better resilient infrastructure habitat options to be provided by local municipalities, Solutions for Landslides, Resilience Amplification, Liquefaction, improving bearing capacity of soil, Land Micro-zonation mapping and the critical need for making investment in seismological studies & need for Collaborative Experimental Research.

f) Govt. of India's global initiative: Coalition for Disaster Resilient Infrastructure(CDRI) & Urban School Safety, its' mission and strategy, Governance & policy, risk identification & estimation, standards & certification, capacity building, innovation & emerging technologies, recovery & reconstruction, finance & community approaches and the Annual Fellowship programme to attract novel ideas of UDRR;

g) Urban Heat Island Concept, Causes, Structural and Non Structural Measures to reduce this syndrome, Awareness Generation, Change in use of material for green building construction, their shape and design, smart city concept, green technologies and providing local solutions to local problems using indigenous technologies;

h) DM Plan, Act & Policy Intervention, Significance of Hazard & Risk Assessment, prevention & mitigation plans, preparedness plans, response plans, recovery plans, evacuation plans, emergency access plans, emergency management plans, regular monitoring and evaluation etc.

i) Role of capacity building of community to strengthen DRR measures, Training Programmes, Mock Drills, Involvement in Planning Processes, Inculcating sense of belongingness and togetherness, DM Kit and Go Kit for crisis situations, Local level planning, assets information gathering and keeping vigil on situations etc.

j) Civil Engineering & DRR: Role of civil engineers for planning and creating urban resilient infrastructure, How to avoid unscientific land use and land cover planning, non-implementation of building by laws, encroachment into forest areas, depleting ground water levels, air pollution, road congestion, heat wave islands inside urban areas etc.;

Disaster Resilient Healthcare Infrastructure in India, 13-16 April 2021

Key Takeaway/Recommendations

a) States are largely independent in matters relating to the delivery of health care to the people. Each state has developed its own system of healthcare delivery, independent of the Central Government.

b) The Central Government responsibility consists mainly of policy making, planning, guiding, assisting, evaluating and coordinating the work of the State Health Ministries.

c) Architecture and spatial planning of hospital areas, plays a vital role in ensuring uninterrupted functioning of the medical services.

d) Fire in the hospital building is one of the major types of risk and is caused mainly due to short-circuiting of the appliances.

e) All MEP services shall be designed for safe usage and maintenance. Maintenance shall only cause acceptable minimal disruption to healthcare procedures and minimal disturbance to patients.

f) The design frame work through case studies showed simple structure works better in disaster safety rather than complex structures.

g) Base isolation system and retrofitting should be taken up for new as well as old infrastructures.



Urban Flood Resilient Infrastructure, Livestock and Animal safety, 22-24 April 2021

Key Takeaway/Recommendations

a) Make flood risk and flood hazard assessment an integral part of the master plan.

b) Record construction detail along with the plinth and ground level in master inventory.

c) Provide flood-resistant temporary shelters.

d) To develop a sustainable pipeline infrastructure, there shall be good coordination between pipeline operator and irrigation department.

e) Strengthen the riverbank at all major river to avoid such erosions.

f) Develop proper disaster management system in consultation with local authorities of mutual benefit.

g) Institutionalized Animal in Disaster (AiD) with dedicated Department/ function with required resources and capacity.

h) Integrating Animal and their welfare in DRR/ DM plans, program at all levels (national, state and district).

i) All stake holders must include Animal in their DRR/ DM programs.

j) Need to create more Public Awareness.

Incident Response System: Basic & Intermediate, 26-28 April 2021

Key Takeaway/Recommendations

a) As a tool, it must be very systematic and effective; however, this can only be experienced once Rajasthan uses the same.

b) Participants were of the view that experiences on challenges and value addition of using IRS in responding to various disasters of the states/ UTs who have notified it could be added to the course content.

c) Information flow, coordination and systematic response by various stakeholders is key for effective

management of disasters and IRS talks about addressing these issues.



d) Accountability is required during crisis times and IRS by virtue of various forms addresses the issue.

e) Responder's safety is the critical feature of IRS as a tool.

f) IRS as a tool will streamline and smoothen the response activities.

g) Planning and strategy making is an important part of any activity and the same has been emphasized by IRS.

h) The added advantage of use if IRS is that it can be enlarged or contracted based on the situation and resources.

School Safety, 27-29 April 2021



Key Takeaway/Recommendations

a) The buildings should be built to ensure "life safety", and be more resilient to hazards.

b) Based on the assessment of needs, the School Development Plan needs to be prepared by the School Management Committee.

c) The schools must be vigilant and constantly be on the lookout for any forms of child abuse, whether physical, emotional, or sexual. The staff should be trained to understand key indicators of child abuse, and be prepared to respond instantly to inappropriate or harmful behavior.

d) In 2014, CBSE made it mandatory for all school buses to install GPS systems to ensure safe transportation of children to and from schools.

e) To prevent the spread of SARS-CoV-2, the virus that causes COVID-19, there are a number of safety steps schools should take. Key steps include face masks, physical distancing, testing & temperature checks, cleaning, disinfecting & hygiene and Ventilation.

Multi-Hazard Safety and Disaster Reduction in Industries, 26-28 April 2021



Key Takeaway/Recommendations

a) Maintaining adequate inventory of safety equipment, firefighting equipment etc.

b) Developing dedicated action plans for different applicable disaster.

c) Developing strict quality control/ assurance protocols for vendor/ contractor qualification.

d) It is evident that we must adopt all safety measures in all industrial fronts to avoid accident and disaster and save human lives, property as well as the environment.

e) One Call Emergency Centre need to be created for Oil & Gas Operations, Including pipelines which will facilitate individual operators to communicate its operational urgencies.

f) Purge storage tanks with an inert gas to remove oxygen.

Eco-Disaster Reduction (DRR) for Dryland Improvement, 26-28 April 2021

Key Takeaway/Recommendations



a) The training program provided an insight about the importance of Ecosystem as an alternative solution to Disaster Risk Reduction (DRR).

b) Reasons for Ecosystem Degradation as well as challenges in dryland agriculture have been extensively discussed by the experts.

c) Ecosystem restoration in degraded ecosystems will not only regenerate but will also lead to livelihood opportunities to the local communities, food security and halt migration of people to cities.

d) Convergence of flagship developmental schemes such as MGNERGA and involving local communities as well as local level institutions are key for any restoration projects to be successful.

e) Further, voices of local people need to hear in conservation as well as restoration projects because vulnerability is linked to socio-ecological issues.

f) However, Ecosystem or nature cannot be a 100% solution to disaster especially in short term and therefore, it should supplement the conventional solutions to disasters such as engineering solutions.

Media and Disaster Management, 26-28 April 2021

Key Takeaway/Recommendations



a) NIDM has a very important role in spreading knowledge and information to the communities and make them competent to use the existing terrestrial broadcasting infrastructure to support emergency communications in disaster situations to the best extent.

b) Need to emphasize on communication during disaster and there is urgent need to declare a separate National Disaster FM frequency.

c) Local innovation needs to be harnessed and integrated with new technologies wherever possible while strengthening early warning and communication system.

d) Broadcasting techniques and systems for use in emergency communications needs to be continuously improvised.

e) Journalists need to use the reverse search option to find the original source of an image or to know the approximate date when a picture was first published on the Internet.

f) Educating society regarding rumor control during disaster response is very essential. There is a need to train and promote society to follow government organizations, official and credible source of information to get factual updates about what is happening in disaster situations.

g) Cross-check the reliability of news with websites containing reliable, factual information about this virus and infection before trusting the information.

h) NIDM should take initiative to develop a network of community radio in India which will bring together all the community radio operating in India under one umbrella

i) There is need to promote utilization of social media for quick response and rescue measures helping in adapting to vulnerable situation.

j) Collaboration and coordination between broadcasting organizations in emergency situations needs to be strengthen.

k) NIDM should carry out various Information Education Communication (IEC) activities to train-up media personnel to create contents and programs in disaster Management spreading information of disaster preparedness, education, health and other nationally important issues.

l) Need to come up with a one stop solution (one single app) that offers fastest, easily accessible, user friendly, most comprehensive disaster related notification system covering nearly every type of natural and man-made hazard.

m) Initiative must be taken to create a network of amateur radio in India to strengthen community based disaster preparedness by reaching to the people and save life from natural disasters.

POT on CCDRR, 26-28 April 2021

Key Takeaway/Recommendations

a) Enforce regular hand washing with safe water and soap, alcohol rub/hand sanitizer or chlorine solution and, at a minimum, daily disinfection and cleaning of school surfaces.

b) Ensure water, sanitation and waste management facilities and follow environmental cleaning and decontamination procedures.

c) To empower children and involve them in the process of Disaster The training took place virtually on the platform of Cisco Webex Meetings.

d) The practice of conducting the training online allowed for it to be accessible thereby increasing the outreach.

e) The training was delivered in English, while some concepts were also translated to Hindi, keeping in mind that most participants were Hindi speaking. The mode of interaction was interactive, wherein the participants indulged in a dialogue after every session was conducted.



f) To recognize the Disaster impact to mental health and their manifestations and coping mechanisms.

g) 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).

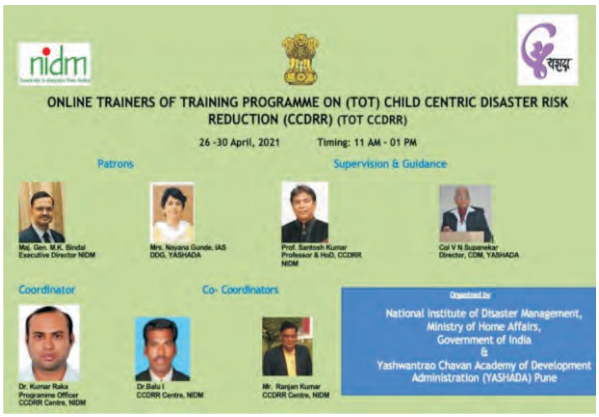
h) Understand basic information about corona virus disease (COVID-19), including its symptoms, complications, how it is transmitted and how to prevent transmission.

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

j) Be aware of fake information/myths that may circulate by word-of-mouth or online.

ToT on CCDRR, 26-30 April 2021

Key Takeaway/Recommendations



a) All inclusive approach in Disaster Management and active involvement of children even in decision making.

b) Rights of children are enumerated in various acts and regulations and needs implementation during and after disasters.

c) Sound Mental Health and Children in their childhood is essential for their personality development and need to be given special attention.

d) Enforce regular hand washing with safe water and soap, alcohol rub/hand sanitizer or chlorine solution and, at a minimum, daily disinfection and cleaning of school surfaces.

e) Ensure water, sanitation and waste management facilities and follow environmental cleaning and decontamination procedures.

f) 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).

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

PoT on CCDRR, 28-30 April 2021

Key Takeaway/Recommendations



a) Importance of psycho-social care for children and adolescents following disasters.

b) Comprehensive understanding about Do's and Don'ts during COVID 19.

c) Knowledge about CCDRR and Commitments towards Child Rights.

d) Importance of comprehensive school safety programs.

e) The various parameters of structural and non-structural mitigation measure.

f) The importance of planning for natural disasters and emergencies in every educational institution.

g) Learned about Mental Health of Children in the Time of Disaster.

h) Knowledge about School Safety with Special Focus on COVID19.

Integrating Disaster Risk Reduction (DRR) with Gram Panchayat Development Plan, 28-30 April 2021



Key Takeaway/Recommendations

a) The PRI members can play a role of leadership in Disaster Management at all stages. Right from the preparatory stage up to the handling of the long term development activities for risk reduction, PRI can lead in several ways

b) Vulnerability is related to the characteristics and circumstances of a community or system, these characteristics and circumstances make community or system susceptible to hazard and cause loss. There are many aspects of vulnerability, arising from various physical, social, economic, and environmental factors.

c) Gram Panchayats (GPs) across the country have begun preparing gram panchayat development plans (GPDP), presenting an opportunity for the GPs to synchronize their plans with SDGs. Resources from various centrally and state sponsored schemes can be leveraged and converged at the GP level.

d) Sensitization of Gramsabha about the climate change mitigation factors like reducing energy consumption, usage of fossil fuels, plastics, non-renewable building materials and also to promote measures like planting of trees, conserving forests, usage of good agricultural practices like drip irrigation.

e) The Village Disaster Management Plan is required with a view to create an effective and realistic approach, authentic and accurate data base, full proof documentation and rehearse in the community in the shortest possible time with minimum simple orders and procedures so that the people will get maximum benefits.

f) Discussion of Scheme for creation of Taskforce of Youth Volunteers for Disaster Preparedness & Response , Scheme of Training of Masons, Carpenters & Bar Binders of Hazard Resistant Construction & Flagship programmes like MGNREGA, NHS, SSA, ICDS, NRDWSP, TRIBAL & SC Sub plan schemes.

New Emerging Challenges for Disaster Risk Reduction: New Strategic and 15 Finance Commission, 28-30 April 2021



Key Takeaway/Recommendations

a) Covid -19 surge and the need to deliberate on Disaster Risk Reduction

b) Vulnerability of various Stakeholders and discourses on them

c) Covid -19 protocols and the need for precautionary measures

d) Increase consciousness/sensitisation on Individual and socially responsible behavior

e) Disaster Risk preparedness, Risk Reduction, Response and Recovery measures.

f) Role of NGOs and INGOs, Charitable trusts and Societies, Religious Institutions

g) Public Policy, Public Private partnership and other collaborations in Covid-19

h) Capacity Building of individuals, groups, institutions, media and other stakeholders

i) Mapping of the Vulnerable and targeted population and reaching out to them 4

j) Engage in research, training, advocacy, dissemination and policy making initiatives

k) Upgrading of information, incessant communication and receiving feedback on Covid-19

l) Collaboration with many and varied level of Networking partnerships and initiatives.

EDP on Development of Entrepreneurship Skills for women of Disaster Affected Areas, 28-30 April 2021

Key Takeaway/Recommendations



a) Participants were made aware of COVID-19 and its precautionary measures to contain the spread of the virus, which would enable them to start their business Post-covid with precautions.

b) Course Contents were exclusively focusing on Entrepreneurship Development Training that exposed the aspirants to Characteristics of an Entrepreneur, Culture and challenges of an entrepreneur, Its advantages, How an entrepreneurial eco-system is developed, Entrepreneurial Motivation, Business Opportunities Identification, Types of Enterprises, Product Marketing, Business plan preparation and Entrepreneurship Support Ecosystem, etc. to promote self-employment as a career option for the participants.

c) The participants understood the role of entrepreneurship support and enabling ecosystem for promoting entrepreneurship in the country. The factors affecting the success and failure of an entrepreneur.

d) The entrepreneurship ecosystem is the social and economic environment affecting local or regional entrepreneurship.

Disaster Management with Spl. Ref. to Covid Protocols in Sports, 30 April-2 May 2021

Key Takeaway/Recommendations



a) School authorities must assign sports to students based on their health conditions and they must be aware about the health conditions of students.

b) Schools must work on sports management plan in consonance with disaster management plan of school.

c) Psycho-social counseling must be part of regular drill conducted by school authorities.

d) Focus must be laid on strengthening the immunity and lung capacity on regular basis in order to be safe from Pandemic impact.

e) More emphasis to be laid on sports to be utilized as a measure for risk reduction.

Disaster Resilience and Business Continuity and Risk Management, 04-06 May 2021

Key Takeaway/Recommendations



a) Proper Training is essential for developing the capacity of participants around disaster risk management. Such types of courses aim to improve the preparedness and response of the work forces at all levels, before, during and post disasters. This will help stakeholders to work in a coordinated manner and plan for business continuity and risk management.

b) Traveling for business study or leisure, need to be aware of enhanced health & safety, geo-political, socio-economic, environmental, and cyber security risks.

c) Overall health & well-being of the community should be at the forefront of consideration when deciding on and implementing international travel measures

d) The company should engage dedicated family liaison professionals with psychological expertise.

e) Need to have GSOC capabilities which includes Centralized Systems monitoring, 24/7 employee hotline and panic button and emergency mass and targeted notification channel and Duty of care platform & app: employee tracking &support while traveling or WFH.

f) Need to have a common framework for BCP across the organizations in line with Disaster Management Plans.

g) To have Business Continuity Plan for the business operations that consists of arrangements and procedures that would enable to respond to an incident that causes an interruption to its normal operations, and continue to perform pre-defined critical activities.

h) Uses of Geospatial Technology which may contribute in analyzing and solving the BC problems through effective resilience.

i) Small and medium scale industry has to be provided significant technical assistance to assess, intervene and demonstrate process / operation and have structured BCPs.

COT on CCDRR, 05-07 May 2021

Key Takeaway/Recommendations



a) Learned about Basic Concepts of Disaster Risk Management.

b) Comprehensive understanding about Do's and Don'ts during COVID 19.

c) Knowledge about Introduction to CCDRR and Commitments towards Child

d) Rights. Learned about Mental Health of Children in the Time of Disaster.

e) Knowledge about School Safety with Special Focus on COVID19.

f) Learned about Disaster Impact and Life Cycle of Children.

Planetary Health in Disaster and Emergencies, 10-12 May 2021

Key Takeaway/Recommendations

a) The necessity for integrating planetary health in disaster and emergency management was evident.

b) Importance of addressing the issues of population explosion, climate change and water scarcity.

c) The importance of planning for sustainable development ensuring continuity of projects and interventions was noted

d) The indexes like epidemic risk index conceptual framework and city prospective index for incorporating planetary health in disaster and emergency management was emphasized.

e) The major environmental problems associated with biodiversity loss, deforestation and meteorological factors were covered.

f) The need for investigating the sustainable urban development was highlighted.

g) Importance of multi-sectoral approach to development for disaster risk reduction was emphasized.



COVID-19 Second Wave and Logistics Supply Chain Management, 11-13 May 2021

Key Takeaway/Recommendations

a) While mobilizing our response to the current crisis, we should not neglect the importance of continuity of routine services which is required for proper movement of logistics.

b) Transporting oxygen from the source to demand locations is a challenge that needs to be addressed for responsiveness and efficiency through properly developed logistics.

c) To make supply chain resilient there is a need to work along with other partners otherwise product cannot reach the customer.

d) Paradigm shift required to save lives, even change in mindset is also necessary.



e) Vaccination is an extremely, useful effective instrument to stem the flow of virus therefore vaccination drive should be planned, deployed and managed at war footing level to cover the entire nation.

f) Ring Vaccination is an important epidemiological tool that can be used to contain the spread of the virus.

g) The Logistics firms, which are involved in the movement of goods, have been directly affected by the pandemic, as an integral part of value chains, both within and across international borders, logistic firms facilitate trade and commerce and help businesses get their products to customers. We need to have a proper policy regarding Logistics and Supply Chain Management during a pandemic.

COT on CCDRR, 13-15 May 2021



Key Takeaway/Recommendations

a) Basic Concepts of Disaster Risk Management

b) Work with officials to guarantee schools are not used as shelters, treatment units, etc.

c) Disaster Impact on children mental health

d) Update or develop school emergency and contingency plans.

e) CCDRR Initiatives and Activities

f) Psychological Understanding of Children in Disasters and Emergencies: A Theoretical Approach

g) Stay informed about COVID-19 through reputable sources such as UNICEF, WHO and national health ministry advisories. Be aware of fake information/myths that may circulate by word-of-mouth or online.

h) Home to Home Safety for School Children

Developing Resilience in Industrial Infrastructure, 18-20 May 2021

Key Takeaway/Recommendations



a) Need for safe Inter-distancing between process units/ installations.

b) For Developing Resilience in an Industrial Infrastructure, there is a need for Strong piling of structures. There is also a need for Fire proofing of all structural support to ensure their stability during fires.

c) Safety of Storages plays a very important part in Disaster Risk Reduction of an Industry.

d) Need for fire-proofing of insulation of storages.

e) Need for cathodic protection of all underground piping and other structural support to avoid corrosion.

f) In any project Maintenance and repair costs to be incorporated in the project planning.

g) Anticipation and assessment of all possible surprise/ risk scenarios and points of vulnerabilities – technical, human, systemic, environment, etc need to be done on priority.

h) Need to develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure to support economic development and human well-being, with a focus on affordable and equitable access for all.

i) Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.

j) Need to facilitate sustainable and resilient infrastructure development through enhanced financial and technological support.

POT on CCDRR, 19-21 May 2021

Key Takeaway/Recommendations



a) Understand the Disaster Management Mechanism in India.

b) Identify the list the activities to protect the children and their rights.

c) Learn the ways to involve children in DRR activities.

d) Learn strategies for home-to-home school safety with the engagement of children.

e) Understand the process of mainstreaming child-centric risk management.

f) Children's health is more vulnerable in a disaster for biophysical reasons and careful planning is needed to reduce casualties during a disaster. During COVID 19 period every institution should re-plan their disaster response plan according to the government directives.

g) The POT-CCDRR highlighted that disaster risk can be best addressed if situation analysis for development- programme formulation considers age and gender related needs.

h) It discussed during the POT- CCDRR programme that social norms/practices such as gender discrimination, child marriages, child labour, etc. get accentuated during disasters and effects different life-phases of children. The allied institution should prepare a detailed plan of action to contain these social vices.

Jan Andolan for COVID-19 Pandemic Appropriate Behaviour, 19-21 May 2021

Key Takeaway/Recommendations

For an Individual:

a) Greet without physical contact - Need to revive traditional gestures and coming up with new ways to greet each other without touching.

b) Maintain Physical distance - Keep a distance of at least 2m from each other and avoid spending time in crowded places or in groups.

c) Wear reusable hand- made face-cover or mask always - People who are not suffering from medical conditions or having breathing difficulties may use the handmade reusable face cover as directed by health ministry.

d) Avoid touching your eyes, nose, or mouth.

e) Maintain respiratory hygiene.

f) Wash hands regularly and thoroughly.

g) Regularly clean and disinfect frequently touched surfaces.

h) Do not spit in the open.

For an Authority:

a) States and UTs need to enforce social distancing in offices.

b) Strict enforcement of the Covid-19 guidelines must be followed.

c) Penal provisions, legal action under Section188 of the IPC, and other legal provisions as applicable.

d) Need for Region- specific targeted communication in high case-load districts.

e) Need to promote simple and easily understandable messages to reach every citizen.

f) Dissemination of COVID-19 information throughout the country using all media platforms needs to promoted via banners and Posters at public places; involving Frontline workers and Targeting Beneficiaries of Government Schemes, Hoardings/ wall paintings/ electronic display boards in government premises.

g) Involvement of Local and National influencers to drive home the message.

h) Seeking support of Local Cable Operators for running COVID messages.

i) Coordinated media campaign across platforms for effective outreach and impact needs to be promoted

IRS: Basic and Intermediate, 19-21 May 2021

Key Takeaway/Recommendations

a) Prepare with triage exercise

b) Identify the size and scope of the incident

c) Contain and isolate compromised devices

d) Eradicate threats

e) Recover and restore normal services

f) Learn lessons from incident and improve future responses



EDP on Agribusiness for Women of Disaster Affected Areas, 19-21 May 2021

Key Takeaway/Recommendations

a) The entrepreneurs play a pivotal role in the economic development of any country. They make use of the factors of production to the fullest advantage of the society, generate employment, create innovation, improve the standard of living, develop backward areas, etc. which lead to higher economic growth.

b) The participants understood the different characteristics through various behavioural exercises and case studies. The trainees were able to understand what are the different characteristics required to become an entrepreneur.

c) The trainees were able to understand the concepts of identification/ selection of projects and setting up of own enterprise to run their business successfully.

d) Entrepreneurship Development Program promotes self-employment and entrepreneurship among the budding and existing entrepreneur to set up and scale up their enterprise in an effective manner respectively.

e) The learners have imparted a thorough insight into the various aspects of enterprise creation, technical know-how, credit sources, marketing of products and changing trends of the market in a global scenario.



eFDP cum Training Workshop on "Basics of DM and DRR", 19-21 May 2021

Key Takeaway/Recommendations

a) Why DRR measures need community involvement, specific attention for disadvantaged sections of the society and how Governments, all alone, can't do the needful DRM, in the absence of constructive roles of all stakeholders;

b) Civil Engineering, innovations in this regard and prudent use of technology for disaster resilient infrastructure vis a vis local technological interventions (Jugad Technology) for local issues;

c) Media's role in information dissemination, last mile reach and how constructive it can be if used pragmatically; Why it needs training for how to handle disaster news and what to hide and what to show, so that community gets the best benefit out of it;



d) Need for Awareness Generation Programme, its chain reaction, how it helps rumor make up and its spread, importance of mock drills to assess the existing DM plans and need for bringing in more course curriculum for DRM studies;

e) Sharing of technological advancements, Lab to land technology transfer approach, Bringing in successful innovations to local levels and its usage after due local customization and how to attract modern youths for opting to education in Science and Technology for better tomorrow;

f) Man-animal Interface, increasing trend of conflicts, safety and avoidance measures, Schemes of Governments to protect such interface, Dos and Don'ts in this regard, Why we need to safeguard our biodiversity for our own sustenance, Stoppage to Dancing Beer Tradition, Rescue of Sloth Beer and Leopards;

g) Long Term DRM Planning and need for finances; Requirement of Disaster Insurance, its concept, shortcomings in our country for its application, Why it is essential in times of multi hazards and way forwards with regard to possible implementation of Insurance Service Schemes in a country like India;

h) Issues and Challenges with regard to Psycho Social Care and Mental Health Services in India, its evolving nature and progress made there in, Lack of database, skilled manpower, attached social stigma, need to stop migration of talented psychologists/psychiatrists to foreign countries for better future, Mental Health Care Act 2017 and schemes like Bharosa, Kiran, Manodarpan, Manas app etc.;

i) Disadvantaged groups of society in a post disaster scenario, their special needs and how to provide them relief, Specific discussion on Women and their DRR needs, How to give them their equity due in participation and leadership in DRM processes, various schemes of things for their betterment and behavioral changes required in the society towards their sufferings;

Community Based Disaster Risk Management, 26-28 May 2021

Key Takeaway/Recommendations



a) Community-Based Disaster Risk Management (CBDRM) is a process, which leads to a locally appropriate and locally "owned" strategy for disaster preparedness and risk reduction.

b) The Disaster Risk Programme aims at contributing towards the social, economic and developmental goals of the National Government and enabling State Governments to minimize loss of development gains from natural disasters and reduce vulnerability. It demonstrates a sustainable model for mainstreaming disaster risk management at all levels with a focus on district and community level activities.

c) Community participation is the most effective element to achieving sustainability in dealing with natural and man-made disaster risks.

d) Capacity building and training of community volunteers is the mainstay of community-based disaster management since they are the first responders.

f) For disaster risk reduction initiatives to be more effective generation and analysis of hazard and disaster-related data and information should be in a manner and language that is understood by the community.

Basic of Disaster Management and DRR, 26-28 May 2021

Key Takeaway/Recommendations



a) Information dissemination among the academicians, researchers and stakeholders with respect to basic disaster management concept, institutional mechanism, global commitments of India w.r.t. SFDRR, SDGs, Paris Climate Change Agreement etc. and need for DRR for a disaster resilient society;

b) Paradigm shift in our approach for DRM, NDMP 2019 revision, Hon'ble PM's 10 point agenda on DRR and how Pandemics is being governed under the DM Act, 2005;

c) Knowledge sharing about various technological interventions, including techniques of Remote Sensing and Geo Informatics, available and in practice for DRR globally;

d) Basic learning about the need for DM Plans and how a District Disaster Management Plans are prepared, implemented, monitored and reviewed from time to time;

e) Message to the society for having a clear cut understanding and making a fine balance between development and nature conservation for sustainable inclusive growth.

f) Women's leadership important factors - Role of women, Social restrictions, Leadership, Proper management, Capacity, Skills, Preparedness and response, Need of the hour is for greater involvement of women.

g) Man-animal Interface, increasing trend of conflicts, safety and avoidance measures, Schemes of Governments to protect such interface, Dos and Don'ts in this regard, Why we need to safeguard our biodiversity for our own sustenance;

h) Animal inclusive DRR; various structural and non structural measures being undertaken by various governments to stop negative man animal interface; Incite and excite conservation of extinct and near extinct biodiversity species, AICHI biodiversity conservation targets and the areas where we need to do more;

i) Stress Management, Breathing technique, Sudarshan Kriya, Meditation, Pranayama, seven chakras of Kundalini awakening and their relation to our emotions, role of meditation and Art of Living in times of Covid-19 and methods for sustainable development with respect to physical and mental well being;

j) Disaster resilience, gap areas, future pathways with respect to S&T innovations, policy paradigm shifts and measures to be observed by Government, private and corporate sectors as well as the local community, changing educational curriculum and bring in culture of safety against hazards and disasters were key points covered during the programme.

k) UN Decade of Ecology Restoration 2021-2030, it needs, where we have failed in the past, concept of giving lands back to the nature, Urban Forests, Stopping Degradation of land and Desertification across the globe, Bonn Convention and India's role and commitment in this regard; Need for Psycho Social Care and Mental Health Services in India, its evolving nature, need for collaboration, cooperation and coordination among various stakeholders working in this areas in silos.

Covid-19 Bio disaster Preparedness, Response & Resilience of Occupational Settings, 27-29 May 2021

Key Takeaway/Recommendations

a) The pandemic has uprooted countless lives. For some, the definition of workplace has changed, and for many others has lost the workplace.

b) The concept of planetary health and the importance of finding the middle path of balance and sustainability at a time where bouncing back from the pandemic effectively is the common goal.

c) Proper vulnerability assessment is required before re-opening businesses and all possibilities need to be considered and prepared for, ensuring safety of the workers first.

d) Accurate and efficient pandemic prediction, forecasting and surveillance are the need of the hour. Improvement of surveillance and incorporation of surveillance on a national level down to the grassroots with proper data collection and analysis at all levels was identified as the most important step forward for the pandemic.

e) Different economic sectors suffered a decrease in output and performance. But the ailing health sector in our country had finally received the warranted attention due to the pandemic.



f) Violence, rigorous hours, isolation and poorer mental health have led to exhaustion and burnout amongst frontline workers including health care workers.

g) The important concept of "Saving Lives, Saving livelihoods" was stressed upon to balance between the priorities of preventing a new wave of COVID-19 cases that could overwhelm the health system and safeguarding livelihoods at the same time.

h) Experiences from South Africa and the US showed that a robust compensation system for workers against COVID-19 disease, well planned reopening of workplaces, monitoring compliance, addressing other occupational health and safety risks, strengthening the capacity for infection prevention and control and vaccination drive were the key workplace interventions taken. The policy of lockdowns and closure of businesses was not considered to be viable in long term.

Child Centric DRR, 27-29 May 2021

Key Takeaway/Recommendations

a) The outcome of the programme was to developed knowledge and skill of various stakeholders (SDO, DPO, BEO, Teachers, Revenue Department Officials, Child line volunteers, member of CWC, Health department, ICDS project officials, NGOs representative Etc.) for child safety.

b) The concept of school safety plan for every school should be in place.

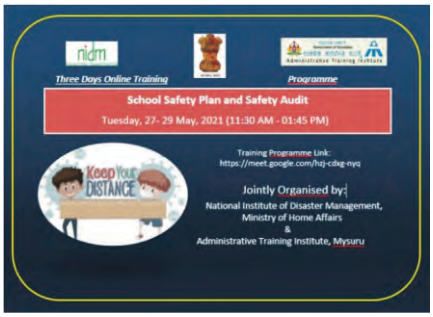


School Safety Plan and Safety Audit, 27-29 May 2021

Key Takeaway/Recommendations

a) To give a safe protected and enabling environment to all students without any discrimination, all stakeholders from state govt., parents, care providers and community need to come together for child's rights.

b) School safety plan should be incorporated and taught to all educational staff members as per the NDMA guidelines. This should form a clear planning with defined role and responsibilities for headmasters and teachers including safety measures for COVID-19.



c) Fire safety should be at highest priority for planning school safety management. Simple mock drills like how to use fire extinguisher, evacuation procedure and how to end small fire through various methods should be taught at all level from students to school staffs.

d) For rural areas awareness and training to artisans and demonstrative constructions can help them for replicating resilient structures in their area especially for earthquake prone areas.

e) Retrofitting measures should be adopted for identified old and weak structures such as for columns and joints to provide additional safety to old school constructions from earthquake hazard.

f) It is important to make school safe from nonstructural point of view as well.

g) School teachers play an important role in guiding the parents as well to maintain their physical and mental health balance.

h) Training of teachers is must for additional school safety during COVID-19 times. These should include humanitarian considerations, triage education, stress management, management of violence and planning in case of disaster.

New Emerging Challenges for Disaster Risk Reduction, New Strategy and 15 Finance Commission, 27-29 May 2021

Key Takeaway/Recommendations



a) It is very high time for the institutions, organisations and people to develop the quality of resilience to overcome the pandemic situation.

b) In the phase of new emerging challenges in disaster risk reduction, it is very important to look at the possible role of universities through a joint collaborative effort in Disaster Risk Reduction.

c) We must make use of the possible utilization of the available resources for Disaster Risk Reduction.

d) The state has an important role to provide disaster relief. Robust regulation is required to reduce disasters and each person must carry out their basic responsibilities, particularly in the case of the environment. Everyone has to work together to minimize and prevent calamity rather than blaming each other for the pandemic situation.

e) Intergovernmental processes and partnerships are needed to meet Emerging Challenges for Disaster Risk Reduction

f) Knowledge, evidence generation and application are key aspects for building Development Resilient Infrastructure

g) Multi-stakeholders' participation, Risk data and information, good practice, policy guidance, tools and capacity building can support in designing constructive intervention programmes to address the needs of all sections of the community affected by the disaster.

h) Disaster risk can be best addressed if situation analysis for development-programme formulation considers age and gender-related needs.

i) Need to consider the age-specific, gender-specific needs, vulnerabilities, capacities while Child Centric Disaster Risk Reduction activities are designed to execute relevant rehabilitation programmes.

j) Continuity of learning opportunity, hygiene improvement practices, sports, recreations through post-disaster early recovery programmes can enable adolescents to prepare themselves for their transition to adulthood.

k) There is still a long way to go in terms of implementing policies for disaster risk reduction in all areas of life, as the 15th finance commission has for the first time set out certain priorities and given guidelines on how the funds for disaster can be used effectively by forcing the state to spend on it.

Genders Equality, Climate Change and Sustainable Development Goals, 27-29 May 2021

Key Takeaway/Recommendations



a) Gender Audit and Budgeting Gender Audit of micro and macro planning and programme implementation and providing platform to women farmers, community workers, students and youth in concerning environmental issues Gender Responsive Budgeting (GRB) to alleviate gender inequality Women Empowerment

b) To combat the lack of freedom and myths associated with women using technology, there is need to empower them with latest tech know how.

c) Efforts are to be made to empower women financially. Recognizing the role of women in environment. Use the indigenous knowledge posed by women to protect the environment. Adaptation strategies from the existing indigenous methods adopted by women should be promoted and enhanced.

d) Capacity Building Capacity building of women farmers at individual and collective levels, through SHGs and Asha workers. Promotion of water and energy saving technologies, through building awareness of women and men at various levels from panchayat to district and state levels.

e) Awareness to cope-up with impacts of climate change, Convergence and Multi-Sector Engagement and people centric policy advocacy. Climate Smart Agriculture Replicable bore well recharge model and ring and pit model for bore well recharge where once recharged a bore well goes dry and underground water-tables and aquifers are replenished thus keeping bore-well up and running.

f) Jal Saheli and Pani Panchayat which work as water resource management councils and covers equity, demand management, rights of landless, community participation and sustainability of the resource.

School Safety in Covid-19 Times, 31 May-2 Jun 2021

Key Takeaway/Recommendations



a) Try reducing our risk by increasing our capacity and preparing for worst scenario.

b) Make use of sustainable resources during disasters.

c) School is second home for children hence ensure home to home safety.

d) Right to education is incomplete without right to safe education.

e) Five steps to school safety: raising awareness, retrofitting, falling hazard, drills, preparedness Basic disaster awareness (BDA).

f) It is important to make school safe from nonstructural point of view as well.

g) School teachers play an important role in guiding the parents as well to maintain their physical and mental health balance.

h) Support to COVID orphan children under trauma through many

Govt schemes like PM Care Fund- monthly stipend, beneficiary under Ayushman Bharat scheme (PM JAY)

i) COVID- 19 pandemic preventive and mitigation measures at school level: screening, isolation of symptomatic kids, rigorous checking, face mask and follow hand hygiene.

Integrating Disaster Risk Reduction with Gram Panchayat Plan (GPDP), 01-04 June 2021

Key Takeaway/Recommendations



a) Importance for GPs to ensure human development. Roles played by the ZP, PS and their standing committees especially those responsible for vulnerable section of society. Understanding the various institutional structures / committees / authorities / bodies constituted for the purpose of Disaster Management at the three tiers of the Panchayati Raj system.

b) Facilitating peer group discussions / interactions between the participants and Panchayat representatives those who have shown exemplary courage and work in handling disasters. Knowledge, information that is expected to be available with the Panchayat member / officials / CBOs / Volunteers etc. to deal with a disaster situation. Acknowledging the importance of certain Behavioral/attitudinal changes along with skills required amongst the PRI members and other stakeholders while handling a disaster like situation.

c) Various types of insurance schemes of the Government and the Private sector for insuring human and animal life, household, crops, other means of livelihood etc.

d) Prevention of damage to ponds / reservoirs and taking steps to protect aquatic life as a long term as well as immediate response.

e) Discussion on local environmental safeguards like mangroves, nature's creatures, habitat, bio-diversity and what can be done to protect/ propagate the same Lecture on local environmental safeguards like mangroves, nature's creatures, habitat, biodiversity and what can be done to protect/ propagate the same.

f) Activities carried out to encourage participants to identify areas where infrastructure need to be strengthened especially with respect to construction of houses, school buildings, ICDS centres, Health centres falling in flood plains, paths of cyclones etc. Preparedness and prevention was ensured for capacity enhancement like refresher courses, training of community members through cascading mode to save lives and livelihoods.

Resilience to Disaster Technological Financial, & Capacity Building, 01-03 June 2021

Key Takeaway/Recommendations

a) Focus should be on improving early warning systems, building disaster management capacity of local communities and improving access to emergency measures.

b) Attention should also be paid on creating resilient infrastructure, which not only survives disasters, but also remains functional during emergencies.

c) With continuous global warming resulting in increase of disaster incidences, it's a high time that investment in disaster resilient infrastructure is seen as pivotal in risk reduction.

d) It is highly important that disaster risk objectives are incorporated in planning of protected areas, ecosystems restoration and natural resource management.

e) Failures to identify the mutual benefits of environmental management, risk reduction and climate change adaptation are lost opportunities to protect lives and promote human well-being.

f) Awareness creation amongst local communities at high risk is also called for A global repository featuring information on how digital technologies are being applied for disaster management would raise awareness and understanding.



g) Hundreds of applications of disruptive technology are underway around the world, but experiences are often buried in news articles and research reports.

h) An information base would be useful for identifying digital interventions that have worked, who the implementers were, and other material to increase understanding about which technologies are relevant for different country circumstances and types of disasters.

Comprehensive Disaster Management, 02-06 June 2021

Key Takeaway/Recommendations

a) Focus of Community strengthening for better utilization of golden hour is a must.

b) Risk auditing of developmental activities is required in order to mitigate future impact of disasters.

c) A robust institutional network is necessary for effective management of disasters. Large scale awareness about such institutions and their role is must.

d) Addressing issues pertaining to most vulnerable groups must for part of disaster management activities.

e) Psycho-social counseling is an important ingredient of the disaster management holistic approach. Hence NGOs, other stakeholders may also be given training regarding Psycho- social counseling.



f) Involvement of Higher education institutions in disaster risk reduction activities for better utilization of youth workforce is need of the hour.

Public Health Emergency Preparedness and Response Capabilities, 02-04 June 2021

Key Takeaway/Recommendations



a) District COVID-19 Response most important part of pandemic preparedness and control

b) Need to carryout epidemiological approach identifying reservoir of infection important for cluster containment in areas having low positivity, containment recommended public health action while in high transmission intensity areas, and mitigation remains the preferred intervention

c) Community engagement for creating awareness and public health action important needs to emphasized

d) While all necessary measures to fight the spread of Novel Corona Virus (COVID 19) are being effectively led by the Central Government and State Governments, there is a need to reinforce the importance of preventive measures and practices in a sustained manner, to deal with the disease over the long run

e) We must take to navigate this wave of information and decide who and what to trust: assess the source, go beyond headlines, identify the author, check the date, examine the supporting evidence, check your biases and turn to fact-checkers

f) Everyone have to help to stop the spread of misinformation. If we see content online that we believe to be false or misleading, we can report it to the hosting social media platform

g) Need to develop critical thinking for well-informed, balanced decision-making that distinguishes between content and presentation

h) Ability to search for information using multiple sources, including social networks needs to developed

i) Need to develop a habit of reading, writing, and comprehension in the current digital context, which is dynamic and increasingly hyper connected

POT on CCDRR, 02-04 June 2021

Key Takeaway/Recommendations



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

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

c) Ways to enhance capacities at the individual level and preparedness at the community and Governmental level to minimize the impact of COVID-19.

d) The different essential behavior for containment of the spread of COVID-19 (i) norms for physical distancing (ii) hand washing (iii) avoidance of crowded places (iv) wearing of a mask (v) healthy hygiene behavior during COVID 19 spread.

e) Rules of home quarantine to check further spread among other family members.

f) Ways to inculcate Covid-19 Appropriate Behavior among children.

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

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

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

j) The various safe school operations to be ensured by the school authorities after the reopening of schools.

k) Different techniques to engage children in Disaster Risk Reduction activities and programmes.

COT on CCDRR, 07-09 June 2021

Key Takeaway/Recommendations



a) Sick students, teachers and other staff should not come to school. Enforce regular hand washing with safe water and soap, alcohol rub/hand sanitizer or chlorine solution and, at a minimum, daily disinfection and cleaning of school surfaces.

b) Ensure water, sanitation and waste management facilities and follow environmental cleaning and decontamination procedures.

c) 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).

d) Understand basic information about corona virus disease (COVID-19), including its symptoms, complications, how it is transmitted and how to prevent transmission. Stay informed about COVID-19 through reputable sources such as UNICEF, WHO and national health ministry advisories. Be aware of fake information/myths that may circulate by word-of-mouth or online. Update or develop school emergency and contingency plans.

e) Work with officials to guarantee schools are not used as shelters, treatment units, etc. Consider cancelling any community events/meetings that usually take place on school premises, based on risk. Reinforce frequent hand washing and sanitation and procure needed supplies.

f) Prepare and maintain hand washing stations with soap and water, and if possible, place alcohol-based hand rub (hand sanitizers) in each classroom, at entrances and exits, and near lunchrooms and toilets. Children constitute most vulnerable group in any disaster. Hence, in any DRR initiative children should acquire high priority. Children being in impressionable age, DRR training of young children is 'generational investment'. Children must have access to schools, health facilities besides routine vaccination and nutritional intake.

Disaster Management for 29 ISS probationers of 42nd batch(2019), 07-11 June 2021

Key Takeaway/Recommendations

a) Development of disaster management plan for NSSTA in accordance with NDMP needs to be carried out.

b) There is a requirement for strengthening disaster risk governance to manage disaster risk with clear vision, competence, plans, guidelines, funding and coordination.

c) Mainstreaming DRR&R strategies in all development activities of the sector must be prioritized.

d) Need of site specific strategies for disaster preparedness, prevention and mitigation.

e) Enhancing the capacity of local actors for the excellence of community based disaster management.

f) Practice disaster prevention during normal period for effective management of any impending crisis.

g) Need to focus and strategies improving data collection capabilities and information resources



h) Need to explore new data collection tools, strategies, and infrastructure need across many sectors to enable effective and accessible data sharing and field implementation.

i) Need for improved data, research, analysis including on the scale of data used for early warning and monitoring of slow onset disasters such as drought.

j) Every institute buildings must have a plan that includes a primary and secondary exit for fire safety. Employees should be taught to respond as if every fire drill were the real thing, even if they were planned and announced in advance.

k) Need to enforce law specifically requiring larger employers to train its staff in Fire Safety. To flag an effective fire risk assessment, it is recommended to train ample staffs in Fire Safety.

Road Safety and Transport Infrastructure Resilience, 08-10 June 2021

Key Takeaway/Recommendations

a) Online training programs on Industrial Safety covers the principles and practices of Industrial Disaster Management in a comprehensive manner. More such types of training programs need to be organized so as to aware the Industries about Safety Management. The country needs a structured response group that will prepare to handle a community-based disaster systematically.



b) The ultimate purpose DRR is to save lives, preserve the environment and protect property and the economy of the country. The protection of life is of utmost importance. In the broadest sense, it raises the understanding of risks and contributes to a safer, sustainable, disaster resilient society.

c) Setting up an accident research team for scientific accident data collection consisting of around 800 variables across the country. This will enable creation of a strong database, thereby helping in development of policies and strategies on the various aspects of road safety. Computer vision powered by AI Technology is the cheapest way to overcome infrastructural deficits in India and yet reduce road collisions, hence Government should mandate passive collision warning systems

installed on vehicles on the road to realize the ministries vision of reducing road fatalities by 50% by 2021 in India. The commercial fleets, HAZMAT, School Fleets, and Ambulances should be mandated to have such lifesaving devices immediately. Key benefits of passive warning systems and its relevance in India is it can be deployed today to large installed base.

d) To accelerate faster adoption of this technology, Government of India should incentivize commercial and passenger vehicle owners, to enable them to have reduced insurance premiums in lieu of CAS/CWS installed in their vehicles. Government should invite insurance regulatory bodies like IRDA, insurance providers and other eco system players to come on board and publish a whitepaper towards this recommendation.

e) GoI should formulate and establish Point based 'Safe vehicle ratings system', like few European Countries have already done for Commercial and Passenger vehicles nationwide to promote adoption of passive warning systems with visible rating icons on the vehicle body accredited by Govt automotive certified agencies or RTOs. This should help enable a consumer driven awareness for a safer vehicle.

f) Govt should also look at encouraging states to mandate installation of CAS devices for specific categories of vehicles like HAZMAT, state owned passenger bus fleet and school buses.

Integration of DM Plan with Gram Panchayat Development Plan (GPDP), 09-11 June 2021

Key Takeaway/Recommendations



a) The panchayat can prepare village communities to deal with disasters through: Mitigation strategy including reducing vulnerability. Risk assessment.

b) Identification of vulnerable groups and extent of their vulnerability.

c) Preparing for early warning systems.

d) Response plan in terms of action strategies to be followed during disaster and in post-disaster periods.

e) Role of PRI members in pre, during and after disasters.

f) A clear understanding on the importance of participatory planning by Gram Panchayats.

g) Discussion of roles of various stakeholder integrating disaster management plans into gram panchayat development plan.

h) How the participants can mobilize the people and utilize the disaster management plan was one of the major objectives of the webinar

i) Preparation of vulnerability and hazard assessment map with respect to COVID-19.

j) The difference between prevention and mitigation were explained to the participants.

k) Preparation of seasonal calendar by the participants.

l) How Disaster Risk Reduction is helpful to MGNREGA was explained to the Participants.

m) Key discussion regarding paradigm shift in Disaster Management to Disaster Risk Reduction including the Sendai Framework.

n) The problem of encroachment of water bodies was explained.

o) Preparation of Disaster management Plan (components and planning steps) were actively explained and its methodology (hazard profile, history of hazard, develop damage assessment,) which can be used at village and local level was explained.

p) The role of Hazard Risk Vulnerability Capacity Assessment is mandatory in order to make a good disaster management plan at gram panchayat or block level was a major takeaway for the participants.

Child Centric Disaster Risk Reduction, 09-11 June 2021

Key Takeaway/Recommendations

a) Non Structural methods are often neglected during preparedness and hence must be focused more during future preparedness activities.

b) Home to Home safety of children is to be ensured for holistic reduction of disaster risk.

c) Regular meetings of parent and Teachers are must for bringing in coordination to take up various safety measures.

d) Fire & Emergency services must be engaged for regular disaster drills in schools.

e) School authorities must ensure effective coordination with district and local administration to ensure better management of disasters and establishment of safety measures.



Role of Industries in COVID-19 Mitigation and Management, 09-11 June 2021

Key Takeaway/Recommendations

a) Need to highlight the significance of a proactive Crisis Communication Protocol at State, National & Global levels to contain & combat the impact of such health disaster. There is also a need to form proper policies towards finding effective business solutions to create a sustainable economy during challenging times.

b) Recognize eco-restoration as a cross cutting scientific DRR Discourse for any type of technologies like clean technologies, which is the need of the hour.

c) It was suggested that use of technology & digitization is the key towards better management & business continuity during the pandemic.

d) Set up oxygen generation/ supply plants for hospital.

e) Waste Management Services should be recognized as essential service.

f) Vaccination is an extremely, useful effective instrument to stem the flow of virus therefore vaccination drive should be planned, deployed and managed at war footing level to cover the entire nation.



Sensitization/Awareness Training Program (3-day) Covid-19 Pandemic 2nd Wave Understanding, Response and Preparedness, 11-13 June 2021

Key Takeaway/Recommendations



a) There is an urgent need to be prepared and ready for COVID-19 progression in times to come. An urgent need to focus on micro containment and monitoring and responding to the progression of pandemic leveraging on real time data and community testing. Realize that the current pandemic will leave a tail of issues including mental, social, and economic behind. Aspects of inequitable exposure, and as a result inequitable impact.

b) To be sensitive to the fact that, minority population or socioeconomically deprived populations are often left behind in times of disaster. Understand the impact on economy - viz. tourism in Assam, social economic impact, need to maintain focus on long term climate change induced disasters.

c) Focus on equitable economic recovery to come out of the pandemic. Cascading Risk in the light of the pandemic. The Pandemic has made response to existing hazards across world in terms of locusts, wildfires, droughts, more challenging, and new approaches are needed. We should not lose sight of the pandemic 2nd wave and rather use these learning's to prepare resilience in local communities.

d) The spirit of KRANTII NGO, Barefoot College Tiloniya and COVID Task Force act as beacon of light towards what community can do in the midst of a disaster. Innovation and Technology solution X-Ray Setu pave the way for enhancing our capability and response COVID-19 pandemic – a disaster with a large scale and complexity. Vaccination for all holds the key. We are a large country with experience in large scale vaccination, polio. We can leverage on such effort to ensure vaccination for all.

e) The role of development agencies filling the gap between the Top Down and Bottom up Efforts will play a key role in a short term and long term response in managing the pandemic.

Sensitization/Awareness Training Program (3-day) Covid-19 Pandemic 2nd Wave Understanding, Response and Preparedness, 11-13 June 2021

Key Takeaway/Recommendations



a) Large dams can only cater to about 10% needs of water and these dams do not last long, though India has more than 5700 large dams ranking third globally. After their life are over, may be 100 or 200 years, coastal reservoirs are to be taken as long term solution.

b) Solar and wind energy are promising renewable energies that needs to be harnessed at the current state of depletion of fossil fuel. The Government of India has set the target of deploying 20,000 MW of grid connected solar power by 2022 is aimed at reducing the cost of solar power generation through R&D.

c) Need to optimize solar panel mounting structural systems, which will be in mass numbers for such high capacities towards making them economical and sustainable against wind loads

c) Proactive Road Transport Infrastructure, Road Crash Statistics and Trends, Road User behavior and Risk Factors, Proactive Traffic Safety Evaluation, Surrogative Safety Measures, Safety Evaluation at Signalized Intersections, Road Safety Audit-Its Principles and Processes have been discussed.

d) IoT (ICT) Based tools for Monitoring & Giving Early Warning for Disasters "in-wait".

e) Use of smart devices in structural health monitoring of structures, the use of early warning devices for air quality monitoring, as panic button, head counter from a remote location customer feedback and COVID tracker are explained

f) Nature-Structure-Future: Future Infrastructure which would try mimicking the biological systems like integrating the sensors with Processors and Actuators in the same manners as the Nervous system is connected with brain and the muscular system.

g) In taking up R& D in Earthquake Disaster mitigation, seven important things that we should keep in mind while designing the structure i.e., simple configuration, it must have at least minimum lateral strength and stiffness, it must have reasonable ductility and a guaranteed deformability in the structure, it should have desirable collapse mechanism and is not a force it should be considered has the displacement while designing the structure.

POT on CCDRR, 15-17 June 2021

Key Takeaway/Recommendations



a) National Disaster Management Authority (NDMA) to provide guidance, coordination and synergy.

b) State Disaster Management Authority (SDMA) and State Executive Committee will coordinate and monitor implementation of National policy, National plan and State plan.

c) There are specific roles of NDRF during an emergency situation.

d) Disaster Management Act, 2005 is an important legislation in the field.

e) There are specific duties to be performed during pre-disaster phase and post disaster phase.

f) The disaster management mechanism in India works through three tier mechanism.

g) Engaging local adolescents in responding to disaster is found widely and it is crucial to empower them to take actions to protect themselves and their surroundings.

h) There are many disasters occurred, in which we lost many children at school and made the country to rethink about safe schools.

i) Safe schools aim for zero death, zero days of loss and protecting investment in education.

j) The school needs to address the emotional wellbeing, psycho social needs of children and encourage children to discuss their questions and concerns.

k) Type of disaster, the extent and duration of disaster are some of the factors affecting the emotional health of children.

Disaster Resilient Waste Management for Sustainable Spaces, 16-18 June 2021

Key Takeaway/Recommendations



a) The waste needs to be segregated into various categories such as chemical, biological, thermal and waste for dumps and landfills.

b) Inculcating the idea of segregation of waste at source and local composting. Inter-sectoral cooperation for waste management

c) Exploring the aspects of participation and integration of the different sectors in detail in order to arrive at a framework for action on waste management.

d) Strengthening local governance framework and capacity tools, making cities financially self-reliant, reimaging collaborative architecture at local levels. Strengthening informal sector

e) Integrating waste pickers into door step waste collection system with direct user fee based door step collection.

f) Social integration and inclusion of informal sector.

g) Providing maximum livelihood generation for waste pickers and facilitation of decentralized waste processing and the ability of system to self-sustain it. Disaster waste management plan

h) Having a disaster waste management plan especially in disaster prone areas for tackling disaster waste effectively.

i) Need for disaster waste public information program for community participation.

j) Need of an emergency preparedness action plan for onsite storage and transportation of waste.

k) Follow of comprehensive Disaster response, recovery and risk reduction plans for disaster management.

l) Urban local bodies to come up with debris management plans to ensure that usable materials are recovered recycled as aggregates and utilized in development activities. Enhancing Circular Economy

m) Use of circular economy pathway of generating resources from waste by utilizing waste as secondary raw material to reduce extraction of primary raw material and associated environmental impacts.

N) Creating extended producer Responsibility (EPR) policy awareness.

Disaster Management during COVID-Crisis, 16-18 June 2021

Key Takeaway/Recommendations



a) The combined approach to deal with the other disasters in COVID 19 situation had become a big challenge, because on one hand we have to follow the COVID 19 precautionary guidelines and on the other hand, we have to search, rescue and provide a relief to the people who are getting victimized because of other disasters as well.

b) In this pandemic what is more essential is to keep the things in with all safeties, so that the people who are working on the site should not suffer from the COVID. The best method to prevent the COVID is to focus on your work

with all precautions and does your work as you have been doing earlier while taking all the golden principles of the prevention that is wear mask, social distancing, personal hygiene and vaccination.

c) To achieve agreed goals for disaster risk reduction and resilience we need to enhance capacity in terms of physical, institutional, social, economic as well as skilled personnel. Preparedness is another key, if people are prepared, they can reduce the risk. So, knowledge and capacities of the professionals and all stakeholders is very much required for anticipation, response and recovery from any disaster situations.

d) The common causes for chemical accidents are deficiencies in safety management systems or human errors, natural calamities or sabotage may also trigger such accidents.

e) The root cause for such industrial accidents include ignoring SOPs or SOPs are not properly communicated, lack of awareness among key executives/regulators/decision makers. In order to avoid the industrial accidents we have to relook our SOPs and also proper directions are required under regulations beside proper monitoring, proper enforcement and proper/regulation evaluation.

f) To enhance the awareness of regulators, they need to be educated properly and professionally. Decision makers need thorough understanding about the chemical processes. Quantitative Risk Assessment (QRA) is still not understood by majority of stakeholders. If QRA is not made properly, the whole thing will go derailed so proper understanding of all the stakeholders about QRA is prerequisite.

POT on CCDRR, 17-19 June 2021



Key Takeaway/Recommendations

a) Sick students, teachers and other staff should not come to school Enforce regular hand washing with safe water and soap, alcohol rub/hand sanitizer or chlorine solution and, at a minimum, daily disinfection and cleaning of school surfaces.

b) Ensure water, sanitation and waste management facilities and follow environmental cleaning and decontamination procedures

c) 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).

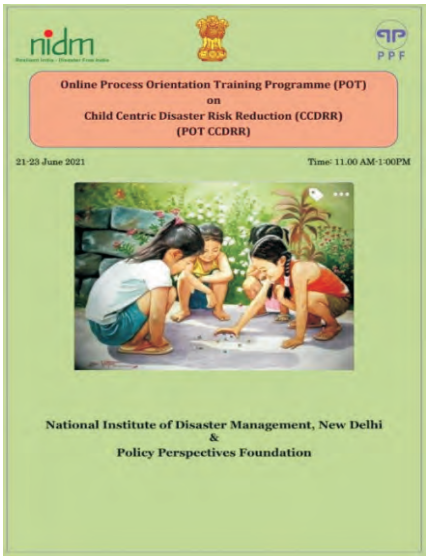
d) Understand basic information about corona virus disease (COVID-19), including its symptoms, complications, how it is transmitted and how to prevent transmission. Stay informed about COVID-19 through reputable sources such as UNICEF, WHO and national health ministry advisories. Be aware of fake information/myths that may circulate by word-of-mouth or online. Update or develop school emergency and contingency plans.

e) Work with officials to guarantee schools are not used as shelters, treatment units, etc. Consider cancelling any community events/meetings that usually take place on school premises, based on risk.

f) Reinforce frequent hand-washing and sanitation and procure needed supplies. Prepare and maintain hand-washing stations with soap and water, and if possible, place alcohol-based hand rub (hand sanitizers) in each classroom, at entrances and exits, and near lunchrooms and toilets.

POT on CCDRR, 21-23 June 2021

Key Takeaway/Recommendations



a) Sick students, teachers and other staff should not come to school.

b) Enforce regular hand washing with safe water and soap, alcohol rub/hand sanitizer or chlorine solution and, at a minimum, daily disinfection and cleaning of school surfaces.

c) Ensure water, sanitation and waste management facilities and follow environmental cleaning and decontamination procedures.

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. Be aware of fake information/myths that may circulate by word-of-mouth or online.

g) Update or develop school emergency and contingency plans.

h) Work with officials to guarantee schools are not used as shelters, treatment units, etc.

i) Consider cancelling any community events/meetings that usually take place on school premises, based on risk.

j) Reinforce frequent hand washing and sanitation and procure needed supplies.

k) Prepare and maintain hand washing stations with soap and water, and if possible, place alcohol-based hand rub (hand sanitizers) in each classroom, at entrances and exits, and near lunchrooms and toilets.

l) Children constitute the most vulnerable group in any disaster. Hence, in any DRR initiative children should acquire high priority.

m) Children must have access to schools, health facilities besides routine vaccination and nutritional intake.

Flood Risk Reduction during Covid-19 Times, 23-25 June 2021

Key Takeaway/Recommendations



a) Use of technology like drones, satellites can help profoundly for early warnings during flood situations.

b) Information knowledge and preparedness is needed to improve the capabilities and mock drills should be regularly done as well.

c) Disaster management plan at village level should be promoted for systematic and efficient preparedness against floods.

d) Flood extent is reduced in many areas due to formation of embankments and reduced rainfalls from earlier.

e) Porcupine structures are cost effective structural measure to safeguard the embankments by reducing the energy of river crashing the banks.

f) Need to be prepared for much health related issues such as vector borne diseases and medical emergencies from electric shocks could arise after floods.

g) If anyone is medically unfit & living in the flood prone areas, such people should be shifted beforehand.

h) Early warning system need to be timely communicated to local people in impact based information.

Sustainable Coastal Community Based Disaster Risk Reduction, 21-23 June 2021

Key Takeaway/Recommendations

a) Climate change and disaster risk are serious concerns considering the vulnerability of coastal areas and cities to various climate disaster threats



b) Restrictive measures against the pandemic, though necessary, are particularly damaging for small-scale fisheries. The sector is crucial to people's nutrition, food security, sustainable livelihoods and wellbeing worldwide as it employs 90% of the people engaged in fisheries, with hundreds of millions more engaged indirectly.

c) There is a valuable impact of COVID-19 on women in the seafood value chain. Women working in pre-harvest and post-harvest are particularly vulnerable to the impact of COVID-19. Their work is still largely invisible and, in most countries, women's labour rights in the fishing sector are not yet legally recognised, rendering them unable to apply for financial aid.

d) During the Pandemic the Trans community has also faced a lot of stigmatisation and ignorance from society. The stigma around gender identity still exists and need to take measures in addressing these challenges.

Bridge Failures: Man-made Disaster Health Assessment & Evaluation of Bridges on Roads, Railways & Metros, 23-25 June 2021

Key Takeaway/Recommendations



a) Identification of an Organization, Board constitution. Formation of Academic Council, Formation of National Policy formation group, Enrolment of specialized service providers in the National database.

b) Policy formulation & implementation strategy amplification for accreditation of laboratories, and technical personnel for conducting health assessment.

c) Policy formulation & implementation strategy for preparing a National Database on health of Bridges/structures.

d) Enlistment of - a. Agencies, who may provide bridge inspection services, undertake repair, rehabilitation & maintenance works of Bridges. b. Material suppliers, who supply the Construction Chemicals, materials, equipment, Laboratory equipment to conduct health assessment. c. Colleges/ Institutions, who have Laboratories to conduct the testing & diagnostic studies.

e) Grading of "Physical Infrastructure" of States

f) An Atlas to be prepared - a central repository of information regarding history & current health of Highways. It will help in Central Maintenance of forensic records of Road & Rail structures.

g) National Disaster Policy on Bridges & Highways to be evolved & suggested to GoI followed by a Manual / Guidelines.

h) Encourage States to introduce Regulatory provisions by the departments dealing with roads, highway, and bridge construction. Also for periodic health assessment and compulsory, periodic maintenance of structures.

i) Skill development initiatives to be taken up at multiple levels.

Landslide Risk Mitigation and Management in NE India, 28-30 June 2021

Key Takeaway/Recommendations



a) Documentation issues have to be regulated so as to enhance further research work.

b) Disaster Resilience Infrastructure should be encouraged

c) Various precautions to be taken should be promoted through Mass Education and awareness programmes. Landslide prone areas in North-East India

d) Relationship between rainfall, earthquakes and landslides

e) Landslide triggering factors and failure mechanism for landslide hazard modeling. Investigation for landslide includes both Preliminary and Detailed investigation and should include: Surface deformation, geotechnical, geophysical and hydrological analysis.

f) Need to understand vulnerability and its control by simple local measures since costly control measures like tunnels are not possible everywhere.

g) DPR should be properly correlated with site investigation and need to change landslide mitigation methods.

h) Vertiver grass advantages: Extensive root growth in short time, perennial, no need to watering, self-sufficient to grow, drought and fire resistant, non-invasive, byproducts and other livelihood source, not attract any animal or reptiles for hideout.

i) Different types can be used for different purposes. Investigation and research of different type of vertiver grass on the local soil type should be researched properly before practice. Example of shilling Guwahati road where wrong vertiver grass were used. Broad Objectives of the Networking projects in NE India undertaken in the past under NRDMS project

j) Geo-scientific studies of two Active Landslides, Manipur

k) Monitoring of Landslide by Instrumentation and Participatory Mapping

Concurrent Disasters and Best Practices, 28-30 June 2021

Key Takeaway/Recommendations

a) The lockdown forced by the pandemic has converted the medical emergency into a severe socio-economic crisis. This has reversed the socio-economic mobility that the oppressed social groups had attained over several decades of modern economic development.

b) This pandemic has also exposed the shortcomings of the modern development process in which the development opportunities are not equally accessible to all the sections of society.



c) Coastal communities are most vulnerable to natural calamities. These minority communities were affected due to a lack of proper infrastructure during adverse situations including this Covid 19 pandemic.

d) To safeguard this community, government organizations, NGOs, private companies depending on the fisheries sector should build and develop the infrastructure facilities.

e) Pandemic has impacted the education sector in terms of teaching-learning, information, training, coaching, skill development, competence and education.

f) The ultimate strategies for Pandemic survival are government intervention to minimize and check the spread; Vaccination of the population; and active role of medical personnel in treatment and post covid rehabilitation

Disaster Management with focuses on COVID 19 Pandemic, 28-30 June 2021

Key Takeaway/Recommendations



a) We should focus on five-fold strategy of COVID-19 management -- test, track, treat, vaccination, COVID-appropriate behavior

b) Need to boost the morale of doctors, nurses, polices, sanitation works that are on guard 24*7 to protect us.

c) Real time or Conventional RT-PCR test (or any other test approved for diagnosis of COVID-19 by ICMR) is recommended for diagnosis. Rapid Antigen Tests are recommended in specific situation.

d) NIDM should carry out various Information Education Communication (IEC) activities to train-up people to spread information of disaster preparedness, education, health and other nationally important issues.

e) Only the authentic sources have to be used to collect and disseminate information. Application of critical appraisal skills is necessary, so that half-baked or incorrect information is not disseminated.

f) Those under home isolation, stay in contact with treating physician and report promptly in case of any deterioration in clinical condition.

g) If a separate bathroom is not available, the bathroom should be cleaned and disinfected after each use by an ill person. If this is not possible, the caregiver should wait as long as practical after use by an ill person to clean and disinfect the high-touch surfaces.

h) Authorities handling disaster management need to be sensitive to the enormously positive role that media plays in support of their preparedness, rescue, relief and rehabilitation activities. They should understand and appreciate media's dynamics and compulsions also. Seek psycho-social support from peers, community health workers, and counselor. If required seek mental health support service.

Disaster Management Principals and Recent Developments, 30 June-02 July 2021

Key Takeaway/Recommendations

a) Overview of Disaster Management & Disaster Risk Reduction

b) Basics and Fundamentals of Disaster Management

c) Hazard and Vulnerability Profile of India

d) Institutional Mechanism of Disaster Management in India and across the globe

e) Various Global Agreements and Frameworks on Disaster Risk Reduction (DRR)

f) Sustainable Development Goals and Disaster Risk Reduction

g) Disaster Risk Management for Architecture and Heritage

h) Coalition for Disaster Resilient Infrastructure among 24-member countries and its thematic areas

i) Barriers that limit woman's role in disaster risk governance

j) Man-Animal conflict and its Management

k) Measures and protocols of Covid-19 for the captive wild animals

l) Key Components of Covid-19 Appropriate Behavior

m) Maintaining standard hygiene practices at home as well as in working places

n) Greet without physical contact - Need to revive traditional gestures and coming up with new ways to greet each other without touching.

o) Obeying Disaster Management Act and Government orders w.r.t Covid situation.



Other Activities

Regional Consultation Meeting on Mainstreaming Food and Nutrition Security in Emergency Preparedness and Response: Capacity and Needs Assessment, 19 & 20 April 2021

Key Takeaway/Recommendations

a) Scope of the FS&N is limited to the Emergency Preparedness and Response only. Although it will bring much focused findings on the issue in the emergency context, it is also equally relevant to assess the linkages of F&SN in the DRR and Climate Change Context. It was suggested to include questions to assess these linkages.

b) On inclusion and diversity, it was suggested to look into the aspects catering to the needs of specific vulnerable groups, with examples of the tribal focused geographies.

c) It was suggested to assess the plans to meet the special needs of laggard regions in terms of both development levels and exposure to disasters. The point was made with reference to the aspiration districts with a suggestion to include a question on aspiration district.

d) Importance of MISP on Food Security and Nutrition was emphasized in all the four zonal discussions. Suggestions included looking at the MISP guidelines more elaborately during the process of assessment and module development. It was also suggested that, on the lines of developing the MISP on Health where UNICEF had provided technical support to the Government, similar steps can be taken to strengthen the MISP for FS&N.

e) Suggestions were also made to link the assessment with other ongoing processes as well. Examples were cited about the preparation of Food Basket by WFP the finding of which can contribute significantly to the MISP, determining food composition for relief kit etc.

f) It was pointed out that the Direct Beneficiary Transfer (DBT) in Covid-19 context posed its challenges for many during lockdown when ATMs and other functions were not working. It was suggested to assess interlinked aspects which are essential for the benefit of cash transfer programmes.

g) While the scope of the tool is outlined for Government Structure only, it was suggested that, it should also include series of questions to assess that how Government support, monitors or regulates the humanitarian action of Civil Society, NGOs, Diaspora to ensure that the minimum standards are met by them and do no harm principles are followed. CSOs/NGOs Diasporas support plays quite a significant role in every humanitarian response in the country and therefore the assessment tool should also include this aspect.

h) Role of IDRN with reference to the FS&N should be identified to assess its contribution to the effective surge capacity.

i) Quality Monitoring should include monitoring processes in place by Government to assess the quality of the response by Non-state actors.

j) It was highlighted that, often relief gets concentrated to relief camps but the support to spontaneous settlements are not as consistent. The question to assess equitable distribution of relief should also be specifically included.

k) On Best Practices, it was suggested to use portals beyond NIDM including social media and other platforms for a wider publicity of the process.

l) In all consultations, this was pointed out that the CNA tool will also be very relevant for nongovernment actors as survey participants. However, it was agreed that the CNA tool's scope cannot be widened further. The best practice document however, will be taken to a diverse stakeholder including the CSOs, private sectors and individual innovators amongst others.

Thematic Write-up

Last Mile Connectivity: Breaking stereotypes for establishing egalitarian norms.

Prof Santosh Kumar

NIDM's newsletter "Tidings" objective is to reach out to all those individuals/professionals who have interest in disaster management related subjects. The key objectives of dissemination of information are to draw lessons from the events that happened in the past and draft future strategies so that the impact of impending disasters is reduced. But if one goes through the data, we see that the impact of disasters instead of declining has a rising trend. But the good story from where we may say is outstanding learning when it comes to the reduction of mortality rate due to disasters, especially hydro-meteorological disasters. But certainly, the similar story is not there when it comes to the geo-hazard disasters.

In hydro-meteorological disasters, the number of affected people has gone exponentially high. The loss to the economy is also mind boggling. And amongst the affected one, poor is the most critical one. As per the UNCTAD report, due to Covid-19 there is a substantial increase in the number of people living below poverty line. There are 11 million new poor added in the previously existing data of poor. Say 30 percent of the global population are poor and 30 odd percent are also under serious threat of food security. And, globally very few percentages of people controlling the larger global resources. Similar story is also getting reflected from Indian subcontinent and in South Asian nations.

Coming to the theme of Last Mile Connectivity, I had my first encounter with this expression in the year 2001 after the super cyclone of Orissa of 1999. I had joined The World Bank as Disaster Management Specialist and I was asked by my office to have a dialogue with Govt of Orissa for a long-term recovery project and parallay get engaged with the Ministry of Home Affairs, which was a newly inducted Ministry for Disaster Management. We may say that three parallel activities led to the transfer of the rule of business of Disaster Management from the Ministry of Agriculture to the Ministry of Home Affairs. I may be wrong but I was engaged in various conversations with the state and central government. The first was the Orissa super Cyclone 1999 where we collectively failed miserably and subsequently the Kutch (Gujarat) earthquake 2001 which had a devastating impact. With our two consecutive failures, more than 25000 people got killed in both the events in a very short span of time. The two disasters also led to the resignation of two Chief Ministers of the then existing governments. And, the third one was the High-Powered Committee working on the revamping of the Disaster Management System in the country. National Centre for Disaster Management which is now known as NIDM anchored the whole process of HPC.

The long-term recovery of Orissa and also dialogue with the Govt of Gujarat was started and, at the National level dialogue with the newly created DM Division of MHA for having a National Capacity Building Programme for disaster management parallelly initiated. Last Mile connectivity was echoing in all the discussions. I was lucky that I was part of the discussions held in this regard. The World last mile connectivity has been borrowed from the telecom sector which was subsequently used by management gurus in supply chain management. The telecom sector as defined, if I quote as given in Wikipedia, the last mile connectivity is defined as the connectivity between the main backbones.

Network and the users', accelerating the digital transformation requires- Connecting the unconnected to the broadband core networks. Choosing efficient, cost-effective and fast deployment technologies, business and policy, Whereas in supply chain management, it means from point of origin to the point of end. This was related to goods and services. In economics to define such situations is similar to, reaching to the unreached. Now in sustainable development goals, climate adaptation and disaster risk reduction the buzz word is Inclusiveness for involving everyone. In other words, no one is left behind.

In the recovery projects of Orissa and Gujarat, the last mile and reaching to the unreached became integral parts. Similarly, a proposal which was being discussed between the World Bank and DM division of MHA of National Capacity Building projects (National Cyclone Risk Mitigation project, National Earthquake Mitigation project and Building Disaster Response system by strengthening of Fire services) got approved.

Today, when we look back and see what happened in the last 19-20 years in reaching out to the people. In the National Cyclone Risk Mitigation project (NCRMP executed by NDMA and assisted by the World Bank and my engagement was from the World Bank)) this was in the nucleus especially related to the early warning system for cyclones. Information dissemination and connecting people with technology, information system etc remained as priority. This could help in saving lives of the people where millions of people are getting evacuated either voluntarily or with the assistance of the community and local governments. In the Cyclone project this was focussed but in floods, earthquakes, landslides, and droughts still miles to go.

But the last mile connectivity should not be seen in the same way as it was seen earlier in the form of technology, connectivity and end to end services. World, especially after Covid-19 has changed drastically Poverty, inequality, hunger, addition of new poor, mass unemployment, negative growth of the economy, gender-based violence, trafficking, trauma care, increased suicidal rate, education disruption both primary secondary and higher education etc a long list of disparities has posed a complex reality.

The current situation is even worse than World War II. During the covid-19 other disasters are also affecting people more harshly. Cascading impact of disasters even make it worse. Governance is trying to recover and get back to normal with a huge vaccination programme and economic recovery package of 20 lacs crores in the form for AatmaNirbhar Bharat. Most of the countries are trying hard with their recovery packages and to get vaccinated as quickly as possible. The vaccination policies of the countries are also varying as there is absolute supply demand deficiency. Vaccination is the only saving grace in bringing the economy back to its normalcy. In this process of vaccination children below 18 years of age are being vaccinated. Third wave has already predicted where children are going to be affected the most. In one of the webinars conducted by NIDM on the third wave preparedness, experts from Australia, US, New Zealand and India participated. As per their experience of wave 1 and wave 2 children who got affected were not severely affected. Large number of children got sick but did not require hospitalisation. If that is the case going to be true for India worries will not be much but if it goes reverse as large number of children malnourished, weak and living with low immunity. So, when we talk about the last mile connectivity, it should not be seen with its conservative definition. The Prime Minister's ten point agenda of DRR for the implementation of the Sendai framework of DRR would help in breaking many such stereotypes for establishing equity based DRR systems.

We need to broaden the narrow definition of last mile connectivity for designing opportunities, benefits and services. Good health, nutrition, education, social inclusion, social security, food security, energy security, disaster risk security, access to all etc as a priority entitlement. Health for all, education for all is the new guarantees. In the same manner disaster security, food security, energy security should be brought and defined under the purview of fundamental rights underlined with Right to life with Dignity.

There is a need to initiate policy debate for providing legal backing to the formulation of a new definition of last mile connectivity moving from only technology to social inclusion with gender sensitivity. Broadening of definition would allow other sectors to revisit their strategies and programmes for achieving the aspirations of every citizen irrespective of their caste, class, gender, religion, culture and region in addressing underlying risk factors and building resilience. This may help in the formulation of egalitarian society leading to living the ideology of no one left behind. As long it is not addressed, it's a pipe's dream.

Capacity Building in Disaster Management- Functional Strategy

Prof. Chandan Ghosh

All disaster management related information about capacity building activities to be hosted in one platform/web portal so that individual/organisation/stake holders meet the respective requirements judiciously. There have been lots of such exercises on the record book maintained by all capacity building organisations in the country. While impact these trainings are quite significant, following steps are suggested as beginning step for making detail perspective plan:

- Capacity building program has to address real-life problems and their solutions using all geo-informatics and mapping tools, vulnerability and risk perspectives that help decision making faster in all phases of disaster preparedness.
- Disaster preparedness is a continuous cycle of planning, organizing, training, equipping, exercising, evaluation and improvement activities to ensure effective coordination and the enhancement of capabilities to prevent, protect against, respond to, recover from, and mitigate the effects of natural disasters, acts of terrorism, and other man-made disasters.
- Topographical survey of all vulnerable areas using airborne/Drone-based camera (LiDAR or high-resolution camera) as these are readily deployable in the country for more than a decade. The survey is very quick and efficient and it should not be more than few months to get all details of the vulnerable localities in the country at 1:10 scale (it may be noted that most of GSI maps are available as of now 1:25000), which means even 10cm difference in elevation are mapped. Each and every establishment, including buildings, dams, reservoirs, protection levee/embankments, flowing rivers, high tension lines, cross border roads/river communications, rail networks etc. can be mapped and represented in a web-server as well as in Mobile App (Android/IOS).This data is very much essential in planning flood inundation (even placing/positioning the high capacity water pump in a urban flood prone city), storm water flow during monsoon, sanctioning building plans and ONLINE monitoring of falsified constructions, reconfiguring underground and overground utilities/pipelines, flood routing, making a master plan for future expansion/ land-use changes, construction surveillance (legal/illegal), early warning dissemination for thunderbolt, serviceability status of the road network, locations of vital establishment, including bridges, flyover, traffic flow/control measures, Police patrolling, optimized road clearance emergency fire/ambulance, etc. Even surveillance of Air quality emission of greenhouse gases are being done using very much affordable IoT devices/Panic buttons, location sensors, etc.
- Many districts and metro/cities in the country have got DM plan ready in place. Attempts are to be made for functional/workable/moving/app-based DM plan and it is possible to make DM plan integrated but basic data is to be obtained at 1:10 scale or at the 1:100 scale. LiDAR is capable to do at 1:1 scale as well, which means even a mm length can be identified on the ground. This powerful information is helpful in making the 3D walk-through of the any City, industrial complex, business districts, where disaster preparedness and emergency response are in high priority. Even entire on/off ground establishments can be reproduced, for which we don't need any old drawing/blueprints or master plan of the area.
- A mechanism of sharing the resources to be evolved for which Govt. is to facilitate all Education/Research bodies, stake holder – responders, rescuers, UN, INGOs, CBO, faith based organisation work together and complement each other's role in a holistic manner.
- All disaster related database, documentation, quick assessment reports, list of subject experts, etc.

to be made available for all and a protocol for the effective utilisation of the information up to last mile connectivity is to be developed

- Good practices followed up in some of the organized sectors, such as oil refineries, airports, nuclear/thermal power stations, etc. to be recognized by DM stake holders and similar guidelines to be evolved in the DM capacity building framework utilizing the enormous such explored resources available in the country. Updation exercise for all such contents is to be carried out periodically.
- Collation of all capacity building modules/guidelines/mock drills, table top exercises being carried out across the country as well as to be made so that gap areas are identified and addressed time to time
- Climate change, pollution, pandemic events, etc. are to be looked beyond geo-political boundaries, for which role of disaster management related institutions, agencies and their partners countries/organisations/associates are to be strengthened.
- Dissemination of all disaster related information/forecast/early warning etc. need to be made seamless thru' all possible cooperation by state agencies in coordination with central agencies. Most up to date mode of communication/technologies, e.g. earthquake, thunder/hail storm, climatic anomalies, etc., available elsewhere in the globe are to be facilitated in the country.
- Formalization of partnership with many national and international agencies who are imparting training in several other professional domains need to be recognised and they are to be customised in the DM framework of the country.
- A consortium of experts/professionals is to be made and lessons learned from each disaster are to be reviewed and updated while taking up capacity building exercises
- Adapting of the vast local knowledge thru' country wide school safety programs are to be encouraged and teachers doing such kind of capacity building across the country need to be incentivized.
- All agencies, having specific goals/objectives/purposes. Need to make a network/matrix of such institutional back up already existing in the country so that gaps areas are collectively identified and start working on the possible MoUs/collaboration that includes CSR domains from industries, private sectors, philanthropists.
- Country's current stake in the development/dissemination of early warning system is to be augmented. Innovation in DM related activities to be recognized before adopting new technologies from outside.
- Sendai targets and PM's 10 point agenda are to be meaningfully defined and redefined in the context of country's capacity building exercise.

Last Mile Connectivity in Early Warning Systems

Dr. Ajinder Walia

Early warning systems are critical in providing timely information to communities and limiting the adverse impacts of disasters. We do have early warning systems in place for disasters with natural origins like floods, cyclones, landslides, tsunami, heat wave, cold wave etc. However, the early warning system for earthquake is developed to the extent that it does give much lead time to the communities for successful evacuation. The main challenge in dissemination of the early warning systems to the vulnerable community remains the last mile connectivity.

There are many complex social barriers faced by vulnerable communities in order to access the early warnings and act upon it. In case the early warning is shared via text message, then the community members without access to a mobile phone can't receive the warning. In case the warning is not communicated in local language or it is technical in nature or if it lacks clarity then people who receive the warning may not be able to understand either the warning or its implication. They might not be aware of the requisite actions to take within the context of warning issued. In case the vulnerable community is afraid of losing their possessions, or they do not have any safe place to go, or do not have decision-making power, then these social factors will limit their ability to act on the basis of information /warning received.

Within vulnerable communities, factors including age, gender, ethnicity, literacy levels, physical capacity and poverty affect the needs, priorities and abilities of people to access, understand, and respond to information. The Flood Resilience Portal conducted a study on men and women threatened by flooding in Peru and Nepal found out that that men and women were highly aware of the risks they faced, and generally agreed that women faced unique barriers in emergency situations. The main reasons highlighted were that women had gender based responsibilities for home and dependents; the fact that women were often left to face emergencies alone while men were at work, and that they were not equipped with the training they needed to respond; and the fact that men were much more reluctant than to evacuate than women. Women's lack of decision-making power meant that they were likely to be reliant on men to get to a safe location, and by the time the decision was made, the safety of evacuation routes was often compromised. When safe shelter was reached, the key difficulty highlighted by men and women was the lack of separate bathroom facilities for women, who meant that women's privacy and dignity was undermined, and it increased the risk of sexual assault.

We need to ensure that men and women including other genders had access to the warning and had the understanding to act upon the warning. For this, we need to develop early warning systems which are gender sensitive. Women should be trained to participate in the process of early warning dissemination and its response. The training should be held near their homes, at times when they are relatively free from the household chores and child care needs. To address the literacy based challenges, warning should be issued through radio, televisions, door to door communication, voice messages etc. The evacuation routes and shelters should be safe for women so that they do not face hesitation in using evacuation routes and staying at shelters. Finally, empowering women by supporting them in gender equity will go a long way to ensure that women can act according to their own needs and priorities.

Last Mile Connectivity& Disaster Risk Reduction (DRR)

Dr. Sushma Guleria

Disaster Risk Management (DRM) is undergoing noteworthy changes, reflecting the emergence of a globalized system of DRM with technological, organizational, and institutional capacities enhancing DRM's ability as a unit in near real time across the globe (Jensen et al., 2015). Information Communication Technology (ICT) is enabling better communications, remote sensing, monitoring networks, warning systems and modeling and geospatial technologies. Various ICT tools such as geographic information systems (GIS) and global positioning systems (GPS) can allow Organizations to receive satellite information and produce accurate location information about the affected areas, which can be further linked with socioeconomic, demographic and needs assessment information (Hu and Kapucu, 2014). There are diverse emergency management information systems such as E-Team, Web EOC, SharePoint that make it easier to gather, process and disseminate information, which helps emergency managers make informed decisions (Carver and Turoff, 2007).

Various ICTs are used in disaster risk management to help Organisations process and share real-time information. Other functions of ICT are to establish different communication channels, to engage with stakeholders and to coordinate among a large number of agencies.

Early warning systems are designed to analyse the risks of vulnerable communities, carry out the task of monitoring environmental variables, issue warnings and ensure that appropriate response capabilities are in place. The notion of the 'last mile' has been popularized in countries of the Indian Ocean in relation to tsunami Early Warning Systems (EWS) development (Thomalla and Larsen, 2010). Even so, 'last mile' has been understood differently: 'last mile' as a challenge for rural communities to access media and address this by supplementing traditional media channels for warning dissemination with additional technologies (LIRNE Asia, 2008); 'last mile' as the capacity of the community to take action in response to a received warning and that supports the development of the capacities of local institutions (Singh Bedi, 2006).

In hazard EWS the term 'last mile' or 'last kilometer' is frequently used to describe the dissemination of a warning of an impending hazard to the largest number of people at risk in the shortest possible time. The development and implementation of effective systems and procedures for the delivery of credible warnings is typically seen as a considerable challenge – so much so that some actors refer to the 'last 99 miles' (e.g. Hollister, pers. comm., 2008).

The Hyogo framework takes on the perspective of the 'last mile' in stressing that disaster risk reduction (DRR) must be 'underpinned by a more proactive approach to informing, motivating and involving people in all aspects of DRR in their own local communities' through multi-stakeholder and cross-sectoral partnerships (UN/ISDR, 2005). The diversity in interpretations of the notion of 'last mile' hints at the complexities associated with the links between DRM and ICT, the development of national and regional EWSs and the advent of social media in crisis management. Early warning is defined as 'the provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response' (UNISDR, 2004). EWS defines a technological infrastructure that can assist in carrying out these tasks. However, the EWS needs to go beyond this infrastructure by taking account of how risks are understood and providing information for warning messages (Horita et al., 2016).

EWS has the following interlocking elements (Grasso, 2012):

- Risk knowledge : to understand the risks (hazards and vulnerabilities) and priorities at a given level;
- Monitoring : to stay up to date on how the risks and vulnerabilities change through time;
- Response capability : so that each level (pre-season mitigation activities, evacuation or duck-and-cover reflexes) is able to reduce risk once trends are spotted and announced;
- Warning communication : to prepare monitoring information into actionable messages understood by those that need them.
- In addition to the four elements, there are a number of cross-cutting issues that are critical to the development and sustainability of effective EWS; these include:
- Effective governance and institutional arrangements;
- A multi-hazard approach to early warning;
- Involvement of local communities and;
- Consideration of gender perspective, vulnerable populations and cultural diversity.

Way Ahead:

- Communication and dissemination systems should be tailored to the needs of individual communities (e.g. radio or television for those with access and sirens, remote disposals, warning flags or messenger runners for remote communities).
- Messages should incorporate the understanding of the values, concerns and interests of those who will need to take action.
- People-centered early warnings need to be clearly understood by people, easily and readily accessible to people; and timely: tied to response actions to be taken by people before, during and after the event. To be effective, warnings must have not only a sound scientific and technical basis, but also a strong focus on the people exposed to risk.
- Developing working relationships with partners, such as emergency managers and the media, and involving stakeholders in the development and review of the warning system is essential.
- Social media use a decentralized, collaborative and network-based communication approach that allows citizens to generate data and share information about a hazard event irrespective of its geographic location and temporal extent, contributing to a resilient community.

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Last Mile Connectivity & Response

Shekhar Chaturvedi

Response, being an integral part of management of disasters, needs the utmost precision and focus. Responders, survivors, Administration and other stakeholders work in close coordination. The must stakeholder and the first responder has always been community in any disaster and hence last mile connectivity to the community in the field of response is necessary. The activities in response are

1. Search & Rescue: Responders need to reach out to all the survivors. The remote places such as areas in hilly terrain where reaching is very difficult. Hence tracking through technology and use of air lift is the need of the hour and NDRF needs this facility to be self-sustainable and relax Armed forces a bit. Identifying the survivors through technological inputs such as Thermal cameras, sensors, etc. requires long range equipments for last mile connectivity without endangering the responders.
2. Relief: Immediate relief with respect to relief camps and hospitals also requires diligent planning on the part of responders. Identifying of relief camps located at near-most places through GPS etc. and then shifting them.

Preparing for responding to impending disasters need early warning inputs being provided by IMD. Through this input, responding agencies can equip themselves for responding in remote areas including non-reachable ones. Further to it, during peace time as well, responding agencies can connect themselves with people residing in remote areas to train and sensitize them to utilize golden hour.

Last Mile Connectivity: Role of ICDS/ASHAs in Disasters & Emergencies

Dr. Kumar Raka

The second wave of pandemic busted the myth that Covid-19 is largely an urban phenomenon, as 533 out of 741 districts of the country were reportedly affected.[1] Also, the confidence that children are immune to Covid-19 was shattered as the caseload among children rose across the country. Possibility of third wave, challenges of inoculating the 2nd largest population of the world, delays in availability of vaccine for children are raging concerns that needs to be handled by reaching the last mile connectivity as no one is to be left behind.

The first wave of pandemic had hit hard the lower socio-economic strata. A study by Azim Premji University shows that nearly 75 million people in the country were pushed into poverty (earning USD 2 or less per day). About 230 million daily wage earners earnings have been reduced below Rs. 375 (approx. USD 5) per day as per the report of government-appointed committee. Another report by India Development Review says that, out of 159 organisations that were surveyed for Covid-19 second wave response, a whopping 71 per cent said that the biggest demand was for food and rations in the communities they work with. While half of the requests were for vaccine awareness and support, only 29 per cent asked for funding to provide oxygen and medical supplies.[2] It is, therefore, evident that those living in poverty require a lifeline of support and the narrative emerging from the grassroots is clear - food to eat and money to survive. With millions of vulnerable people (for example, migrant labourers) already pushed into poverty, owing to the first wave of the pandemic, the resultant effect on children is unimaginable.

As per various UNICEF reports, one of the most visible initial impacts of the pandemic is on children and their education as 1.5 million schools were closed down, impacting 247 million children in India. School closures also indicate that children are increasingly at risk of exploitation and could be engaged in the worst forms of child labour. Millions of young girls are dropping out of secondary schools, putting them at risk of early marriage, early pregnancy, trafficking and violence. The closure of schools also meant that about 120 million children did not receive their nutrition diet through the Mid-Day Meal programme. It is estimated that 115 million children are at risk of malnutrition due to the pandemic and these numbers are frightening as we consider the existing reality of malnourished children under 5 in India.[3]

Combating the aftershocks of the pandemic and getting a successful outcome for the well-being of children necessitates quality public welfare services more pressing than ever in retouching out to the last parson. One such programme of government is Integrated Child Development Services (ICDS) and effective implementation of the ICDS programme rests heavily on the combined efforts of the anganwadi workers (AWWs), ASHAs and ANMs. Anganwadi workers are women volunteers providing services under the ICDS programme started by the Ministry of Women and Child Development (MoWCD) on October 2, 1975, in a bid to tackle malnutrition among all pregnant women, lactating mothers and children in the age group 0-6 years. There are over 25 lakh Anganwadi Workers and helpers in the country.[4] The work done by them includes providing supplementary nutrition, nutrition and health education, health check-ups, immunisation and pre-school informal education to children.

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[2]Businuss.today.in(July 08, 2021); COVID-19 first wave pushed 23 crore Indians into poverty: Azim Premji University

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[4]Rajpal Sunil .et.al (2020;Utilization of Integrated Child Development Services in India: Programmatic Insights from National Family Health Survey, 2016;file:///C:/Users/ranja/Downloads/ijerph-17-03197.pdf

ASHAs are the grassroots health workers assisting the Ministry of Health and Family Welfare (MoHFW) in delivering primary healthcare, particularly for women and children, in both rural and urban areas since 2005. There are over 10 lakh ASHA workers in the country.[5] The range of services provided by ASHAs include identifying and registering new pregnancies, births and deaths, educating new mothers and their families about breastfeeding, raising awareness about health and nutrition-related government programmes, distributing iron tablets, checking on immunisation schedules of babies and pregnant women, escorting pregnant women for institutional delivery, undertaking periodic checks on tuberculosis (TB) patient, supporting health service delivery through home visits, first-aid and maintaining data and participating in implementing the community-level health programmes.

Basanta Kumar Kar, a Nutrition expert said that Anganwadi workers and ASHAs took the roles of a 'Nutrition Warrior', 'Corona Warrior' and 'Lockdown Hero' during this deadly pandemic. By promoting social distancing norms, they helped in implementing COVID appropriate behaviour and prevented infection, malnutrition and hunger. They could avert the crisis and an impending nutrition famine by providing ration door-to-door. In numerous cases, they referred severely affected malnourished children to the Nutrition Rehabilitation Centres (NRCs) contributing to child survival. They were also given the task of tracking the migrant workers, do contact tracing for people getting the infection, providing ration and nutrition door-to-door and raising awareness about preventive measures.[6]

The government recognizing the capability and field experience in bringing the much-needed healing touch for the people and last mile connectivity to the appropriate schemes by ensuring their effectiveness and reach has acknowledged the need to improve anganwadi centres under Saksham Anganwadi Scheme and aims to upgrade 2.5 lakh such centres across the country. It is up to the state governments to take up the baton.[7] A few States that have done relatively better wherein the others need to learn from the success stories. In Andhra Pradesh and Telangana, anganwadi centres have been geo-tagged to improve service delivery. Gujarat has digitised the supply chain of take-home rations and real-time data is being used to minimise stock outs at the anganwadi centres.

Infrastructure development and capacity building of the ASHAs and anganwadi remains the key to improving the programme and reaching out last mile connectivity, the standards of all its services also need to be up scaled. The States have much to learn from each other's experiences. While angina centres must cater to the needs of the community and the programme's workers, more focus needs to be given to enhancing their service delivery skills and developing a problem resolution approach as they are extremely important in the last mile service delivery in normal situation and also during disasters and emergencies.

[5]http://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=150&lid=226

[6]Barkha Mathur April 06, 2021;, Health, , Swasth India, Women's Day Special;The Unsung Heroes Of India's Primary Healthcare The Anganwadi Workers And ASHAs

[7]Study Practice Inside NITIAyog ;https://niti.gov.in/sites/default/files/2020-08/Practice_Insight_Vol_II.pdf

Widening Digital Divide: Issues and Concerns of Children

Ranjan Kumar

The digital divide has generally been defined as the patterns of unequal access to information technology based on socio-economic status, age, gender, ethnicity and geographical constraints of an individual (Mossberger, et. al., 2003).[8] The "Digital Divide" between those with internet access and those without is not new. The resources available within household to fill homework (school related) gap precedes the current crisis. While this divide is partly due to geographic challenges to install the required infrastructure for high-speed internet, the more pressing issue is the 'socio-economic digital divide' between the 'have' and 'have-nots' of digital means to learn.

Addressing the digital divide is also important because technology can connect people to a wide range of opportunities[9] affecting long-term developmental concerns and economy of the country. Lack of technological access to millions of lower socio-economic strata students was already a pressing concern heightened and highlighted by spread of the pandemic and closures of schools transforming mode of learning suddenly and largely technology based, forcing policy-makers to handle the issue as a primary and pressing concern.[10]

About tens of millions of Indian children, who have not seen the inside of a classroom since March, 2020. In major metropolises such as Mumbai and Delhi, schools remain shutting for a ninth month. The Covid-19 outbreak that led to the closure of schools has had an unprecedented effect on children's education and well-being. It is important to note that interrupting education services can have serious, long-term consequences for economies and societies, such as an increase in inequality, poorer health and nutrition outcomes (as India is one of the largest countries having provision of providing one-time mid-day nutritious meal to the poor children), and reduced social cohesion. Students from poor and marginalized communities face enormous hurdles to continuing their education even in normal times. The consequences of school closures on the country's most vulnerable students especially girls could be serious. Now many of their families are under severe financial stress as India's economy contracts. The absence of schooling combined with falling incomes is likely to lead to higher rates of child-labour and child-marriages. Even a year of lost education has been recognized as having significant economic, health and employment effects.[11]

A recent study of UNICEF (2020) highlights that almost 1.2 billion schoolchildren are affected by the closures of schools as they contend with the realities of remote learning in the midst of the pandemic, and this has raised concerns about a global learning crisis.A 2020 study by Ministry of Human Resource Development (MHRD) found that across the Indian states, the learning of about 240 million children who are currently enrolled in school got severely affected amid COVID-19. Similarly, a study of NCERT (2020) reflects that approximately 27% of the students do not have access to smart phones/laptops to attend classes in a virtual world.[12]

In a report of *Weforum* entitled "How COVID-19 deepens the digital education divide in India" the focus is on how pandemic has brought a sense of urgency to narrowing down the socio-economic digital divide, ways to provide support and additional resources to those struggling children to continue their learning in a healthy atmosphere. Else, when physically returned to universities and schools, disparities

[8]Judy Block.Eastern Michigan University;Distance Education and the Digital Divide: An Academic Perspective;
[9]Distance Education and the Digital Divide: An Academic Perspective, https://www.westga.edu/~distance/ojdla/spring131/block131.html
[10]Degital divide :https://cs.stanford.edu/people/eroberts/cs181/projects/digital-divide/start.html
[11]https://www.washingtonpost.com/world/asia_pacific/india-coronavirus-school-closures/2020/12/23/7e80f628-3efc-11eb-b58b-1623f6267960_story.html
[12]https://practiceconnect.azimpremjiuniversity.edu.in/covid-19-and-the-challenges-of-virtual-mode-of-education-in-india

will persist constituting even a wider learning gaps and outcomes. The post-pandemic education policy should prioritise and accentuate the need to 'bridge the digital divide' in education when governments press the 'great reset' button after any future pandemic forcing closure of society at large and educational institutions in particular.

For achieving technology gap for all students is essential for fulfilment to right to education. There is need to develop framework for achieving excellence without inequality in education for all students and also stress on formulate post pandemic policies and guideline for narrow down gaps and need to work for last mile connectivity for educational equality for all section of society. The financial concerns of schools in shifting towards digital learning need to be short out and government should ensure support for online and digital facilities at appropriate level and encourage CSR in support of online education facilities. Other issues regard readiness in terms of training of teacher and student for digital learning has been strengthen for reducing the gap of transformation of face-to-face learning to digital learning and participatory and joint approach is must.

The security and safety concerns about the digital learning should be considered and also take care of privacy issues of students, especially the girl children. Security and safety of children in the learning process in terms of assignments and home-work activities (dancing classes, yoga classes etc) needs to be confidential. There is also need to focus more about curriculum adjustment for online learning that needs to be more interactive and engaging keeping in view the age-group of children and also involving parent at all levels. The contingency planning for immediate shifting towards online/ digital education should be planned well in advance as per the needs and requirements of learner i.e the children and the caretakers (teachers, parents and other family members in role of caretakers). Advanced planning in this sector has to be child centric and participatory to mitigate adverse impacts of sudden transfer to the digital/ online learning as the country has witnessed during Covid-19 pandemic. The main focus should be on effectively handling learning crises situation during and aftermath of a major disaster or emergency and also to find out solutions for last mile connectivity to ensuring seamless quality services specifically for rural, marginalized, migrants, orphaned and disabled children.

Anganwadi Centres and Service Delivery to the Last Mile amidst Pandemic

Dr. Balu I

Introduction

Children in the age group zero to six years constitute about 158 million of the population of India (2011 census). These Children are the future pillar of the country. the Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and represents one of the world's largest and unique programmes for early childhood care and development Launched on 2nd October, 1975.

The ICDS providing the Early Childhood Care and Education, Maternal and Child health, supplementary nutrition, health awareness, immunization health check up and referral services. The Scheme is centrally sponsored and executed by the Ministry of Women and Child Development.

Pandemic effect on last mile services

The Covid-19 Pandemic and result of lockdown has disrupted the delivery of major welfare services provided by the Anganwadi centre. There is a higher risk of increased malnourishment/morbidity among pregnant / lactating women and children. The disruption of services also exacerbated the risk of women and children.

Covid-19 effect on services of Anganwadi Centre



Delivery of early childhood education activities were suspended at all Anganwadi centres as per orders received from the district administration followed by the order of Ministry of Home Affairs (order dated 24 March 2020).Nutrition service of Anganwadi centre i.e. Hot cooked meals and snacks that being provided to the children attending Anganwadi centre were also disrupted. The Women and Children also experienced the discontinue of Health check-ups and Health and nutrition education along with Water, Sanitation and Hygiene (WASH) Programmes.

Service delivery to the last mile

Ministry of Women and Child Development and State government has taken various steps to ensure the Service delivery of Anganwadi centre to the last mile amidst Pandemic.

Sustaining early childhood education

The prolonged lockdown made the in -person delivery of early childhood education as impossible. Several state governments adopted innovative interventions to deliver early childhood education by leveraging technology. The educational activities are delivered at Anganwadi centre have been digitised and regularly shared with parents to engage their children and ensure early childhood education to the last mile. Government of Gujarat has initiated "Umbare Anganwadi" (Doorstep Anganwadi) wherein a video series "Umbare Anganwadi" was telecasted every alternate day. Periodically thematic Anganwadi modules of early childhood education were taught to the last mile children.

Anganwadi workers from Tamil Nadu recorded action based learning videos and sent to the parents to teach their children during covid-19 lockdown. The online Competition "MoPratibha" to develop the children's creative skill was conducted by Government of Odisha. Series of creative skill competitions for children of different age group was conducted under this initiative.

Door to door delivery of Take Home Ration

During the pandemic Take Home Ration (THR) has been delivered at the doorstep by Anganwadi helpers and workers to the Children between 6 months to 3 years and pregnant &nursing women have been given as per their entitlement once in a month. Children (3-6 years) have been given dry ration such as rice, pulses, oil, condiments, salt etc, in lieu of Hot Cooked Meal once in a month. In both the above cases, eggs, as per entitlement, are to be delivered at the doorstep on a weekly basis.

Ensuring Safety of women and children



Anganwadi functionaries and volunteers from Mizoram were initiated "Mask for all Campaign" wherein thousands of masks were distributed to the women and children. About 1.20 lakh Anganwadi workers in Assam were involved in Covid-19 relief works. Anganwadi workers and helpers from Vizianagaram, Guntur, Kurnool and Chitoor district of Andhra Pradesh were involved in stitched masks and distributed to women and children.

Pregnant women are being sensitized on precautions to be taken for COVID-19 and to report possible symptoms (including fever, cough or difficulty in breathing). They were also being counselled to continue to take proper & adequate nutrition since a healthy diet boosts immunity & resists infections, said by Ms. Soundari Supash, Anganwadi Worker, Kottaram Anganwadi Centre of Vadipatti Taluk, and Madurai District of Tamil Nadu. Ms. Soundari also mentioned that she was regularly monitoring the children's health during the Covid-19.

Conclusion

The mode of operation of ICDS has been changed during the pandemic to ensure service delivery of Anganwadi centre to the last mile. The strategies adopted by ICDS during pandemic are remarkable and the dedication of Anganwadi workers and helpers are appreciable.



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