SUMMARY REPORT

Pilot Testing of Ecosystem-Based DRR Module-2
(Bihar, Jammu & Kashmir and Kerala)
29 Nov – 1 Dec. 2021

Organised Jointly By	
NATIONAL INSTITUTE OF DISASTER MANAGEMENT, (Ministry of Home Affairs, Government of India), Plot no. 15, Pocket-3, Block-B, Sector-29, Rohini, Delhi -110042 Website : www.nidm.gov.in	**SPHERE INDIA, (Sphere India Secretariat) B-94, Sector 44, Noida, Uttar Pradesh – 201303 Website : www.sphereindia.org.in**

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3 Days Webinar on Pilot Testing of Ecosystem-based DRR Module-2
29 Nov – 1 Dec. 2021

Introduction & Objective

Ecosystem-based Disaster Risk Reduction (Eco DRR) is a tool that not only helps to mitigate the impact of disasters but also increases the capacity of a community to become disaster resilient. The Eco DRR Module will help understand hazards, vulnerabilities, challenges, resources, stressors and drivers of stress and capacities in disaster community. It will introduce various concepts including Nature based solutions that can be applied in developmental planning. It will provide practical knowledge and experience of solving disaster risk challenges through Eco DRR techniques.

Ecosystem-based DRR Module 2

An overexploitation of resources has led to a degradation of the environment. The loss of ecosystem services has in turn increased disaster risks. Eco DRR Module - Part 2 is aimed at providing an understanding of how to design an Eco DRR intervention, conduct Stakeholder Analysis, and methods to integrate it into development planning.

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3 Days Webinar on Pilot Testing of Ecosystem-based DRR Module-2
29 Nov – 1 Dec. 2021

AGENDA

Monday, 29 November 2021

Time	Topic	Facilitator
15:00 - 15:10	Introduction and Welcome Address	Sphere India
15:10 - 15:20	Introduction to Eco DRR Module 2	**Jennifer Kishan** Program Manager, CA, Sphere India
15:20 - 15:35	Opening Remarks	**Prof. Anil K Gupta** Head, ECDRM, NIDM
15:35 - 15:45	Stakeholder Analysis in designing of Eco DRR intervention	**Rohit Dharmadhikari** DRR Expert
15:45 - 16:00	Exploring possibilities for Eco DRR through Employment Guarantee Schemes	**Ms Neha Kurian** Consultant, UNEP
16:00 - 16:20	Eco DRR Case Studies from Bihar	**Mr Mukul Kumar** Ass Manager-DRR Humanitarian Focal Point, Save the Children
16:20 - 16:40	Integrating Eco DRR into GPDP Planning	**Mr Mahendra Rajaram** Sr. DRR officer, UNICEF South India
16:40 - 16:55	Q&A	**Open House** Led by Moderator
16:55 - 17:00	Vote of thanks and Announcements	**Jennifer Kishan** Program Manager, CA, Sphere India

Tuesday, 30 November 2021

Time	Topic	Facilitator
15:00 - 15:10	Introduction and Welcome Address	Sphere India
15:10 - 15:20	Introduction to Eco DRR Module 2	**Jennifer Kishan** Program Manager, CA, Sphere India
15:20 - 15:45	Climate Change and Vulnerability Assessment	**Dr. Majid Farooq** Scientist, Centre for Climate Change
15:45 – 16:00	Ecosystem Based DRR: Global Case Studies	**Dr Sweta Baidya** Consultant, ECDRM, NIDM
16:00 - 16:15	Integrating Eco DRR into GDPD	**Mr Mahendra Rajaram** Sr. DRR officer, UNICEF, South India
16:15 - 16:30	Nature Based Solutions & Climate Crisis	**Mr Harshit Sharma** Young Professional, NIDM
16:30 - 16:45	Role of NIDM in Eco DRR	**Ms Fatima Amin**

		Young Professional, NIDM
16:45 - 16:55	Q&A	**Open House** Led by Moderator
16:55 - 17:00	Vote of thanks and Announcements	**Altamash Khan** Program Coordinator, CA, Sphere India

Wednesday, 1 December 2021

Time	Topic	Facilitator
15:00 - 15:10	Introduction and Welcome Address	Sphere India
15:10 - 15:20	Introduction to Eco DRR Module 2	**Jennifer Kishan** Program Manager, CA, Sphere India
15:20 - 15:40	Eco DRR Case studies from Kerala	**Mr Amalraj M.** Assistant Professor, ILDM Govt. of Kerala
15:40 – 16:00	Exploring possibilities for Eco DRR through Employment Guarantee Schemes	**Ms Neha Kurian** Consultant, UNEP
16:00 - 16:20	Stakeholder Analysis in designing an Eco DRR intervention	**Mr Rohit Dharmadhikari** DRR expert
16:20 - 16:30	Q&A	**Open House** Led by Moderator
16:30 - 16:35	Vote of thanks and Announcements	**Jennifer Kishan** Program Manager, CA, Sphere India

Programme Team:

Dr. Henna Hejazi	Sr. Manager	Programs	Sphere India
Ms. Jennifer Kishan	Manager	CA	Sphere India
Mr. Altamash Khan	Program Coordinator	CA	Sphere India
Mr. Michael Islary	Jr. Consultant		NIDM
Mr. Cyljo Abraham	Program Associate	KCS	Sphere India

3 Days Webinar on Pilot Testing of Ecosystem-based DRR Module-2
29 Nov – 1 Dec. 2021

29 November, 2021 – Day 1, Bihar
Summary

The Pilot testing of Ecosystem-based DRR Module-2, a joint initiative of NIDM and Sphere India commenced on 29th November, 2021 in Bihar. The opening day had eminent speakers like Prof Anil K Gupta, Mr Rohit Dharmadhikari, Ms Neha Kurian, Mr Mukul Kumar and Mr Mahendra Rajaram.

The programme started with a joint welcome of all participants and dignitaries by **Ms Jennifer Kishan**, Program Manager, Sphere India.

Prof Anil K Gupta, **Head, ECDRM, NIDM** gave the opening remarks of the session. In his remarks Prof Gupta highlighted the importance of Ecosystem based DRR and its increasing recognition and momentum. He laid emphasised:

- Eco DRR approach is the most economical and socially viable approach.
- There are multiple benefits of Ecosystem based interventions and globally several groups are working on Eco DRR.
- Eco DRR solutions are important for reducing conflicts with nature. These solutions help build community-based resilience.
- He gave an overview of the hazard profile of Bihar and some good initiatives from the region.
- We cannot stop disasters from occurring but can certainly minimise their impact. We can prevent Hazards from turning into disasters by having appropriate preparedness and mitigation measures in place.
- NGOs should also join in these initiatives.

Mr Rohit Dharmadhikari, a **DRR expert** spoke on *Stakeholders Analysis for Eco DRR*. He talked about designing an Eco DRR intervention which includes several steps like Understanding the Socio Ecological System/landscape; Risk and Vulnerability Assessment; Identification of Eco DRR options etc.

- Stakeholder Analysis is a process of systematically gathering and analysing qualitative information.
- The analysis must include a knowledge of the policy, position or against the policy, potential alliances with other stakeholders.
- He spoke of utilities of Stakeholder Analysis.
- 8-major steps of Stakeholder Analysis were briefed on.

- Mr. Dharmadhikari spoke of the importance of participation of vulnerable populations in this activity.
- He highlighted the Role of the Government as a central coordinating agency.
- The Role of NGOs and INGOs is also important as they act as the first responders after a disaster.
- Private Sector is one of the key stakeholders as well and it is important to identify them and develop business continuity plans.

Ms Neha Kurian, **Consultant, UNEP** presented on *Upscaling Eco DRR through Employment Guarantee Scheme in India*. She explained that Ecosystem based DRR aims to harness Ecosystem services offered by natural resources for reducing or mitigating disaster risks. She stated:

- In India, Eco DRR is of utmost importance given multiple hazards.
- There is much potential for Eco DRR approaches in India viz. Coastal protection, Drought Resilience, Urban Flood mitigation, Slope stability, Mountain Hazard Management, Forest Fire Management etc.
- MGNREGS in India is a prime case for Eco DRR intervention as it involves Natural Resource Management work (livelihood assets and infrastructure) and thus offers many co-benefits of mitigation and adaptation.
- To Mainstream Eco-DRR in Mahatma Gandhi NREGS at the National level, Capacity Building, Integration, Policy, Spatial Planning etc. is required.
- Inclusion of DRR is required as a stated objective in EGS Planning instruments (State level circulars, labour budget, and shelf of works).
- In the existing Mahatma Gandhi NREGS framework, the following recommendations can be made:
  - Risk informed planning in selection of works
  - Site selection to be done more scientifically using specialised tools including GIS
  - Specie selection to be done scientifically and utilising local traditional knowledge
  - Scope for upscaling model practices (MORD and NIRD-PR)
  - Strong Monitoring and Evaluation Framework to be done at the local and National level with an Eco-DRR perspective.

Mr Mukul Kumar, **Assistant Manager, DRR Humanitarian Focal Point, Save the Children** shared case studies from Bihar. He spoke of the 2008 Koshi flood in Bihar which was also declared a national calamity, its impacts on the ecosystem, and ecosystem restoration post disaster. He shared:

- There was a lot of sand that was brought due to the flood. For the small and marginal farmers, land degradation and consequent loss of livelihood was a major issue.
- They worked on land reclamation using marginal farmers through MGNRES.
- The land was reclaimed by removing the sand. After that land fertility was ensured. For that *Krishi Vigyan Kendra* had to be involved.

- Changing the crop pattern, plants for nitrogen fixation, Soil testing were some of the eco DRR interventions.
- Agriculture was the main source of livelihood at that place. The cultivation of jute and maize was done and horticulture was gradually adopted by the farmers.
- The initiative was carried out in coordination with the Government, MGNRES and KVK.
- This was also an example of a community based approach as that entire initiative was done through the Gram Sabha.
- The degraded land was converted into fertile land, livelihood was ensured and the people moved towards income generation.
- Eco DRR is a Trans boundary concept in the context of Bihar since the state is also a riverine state which is adjacent to Nepal. Therefore the ecosystem and biodiversity are river based. Being Trans boundary, it always remains an international issue and challenges.
- Mr. Mukul Kumar also highlighted the *Jal Jeevan Hariyali* initiative run by the Government of Bihar which is a classic example of Eco system based DRR.

Mr Mahendra Rajaram, **Sr. DRR officer, UNICEF South India** spoke on *Integrating Eco DRR into GPDP Planning*. He spoke of addressing Gram Panchayat interventions. He gave references of documents on Disaster Management, Climate Change, implementing the Gram Panchayat Act.

- DM Act, 2005 and DM Policy 2009 cover the Ecosystem based DRR approach, particularly the Environmentally Sustainable Development.
- Environmental considerations and development efforts need to go hand in hand for ensuring sustainability. This also relates to SDGs 11 and 13.
- Increased rains in coastal areas in last one month has affected livelihood issues, implementation of MGNRES programme, daily wage labourers, marine fishing etc. This has brought an imbalance in the economic activities and regular livelihoods. This has made imperative for sustainable development and sustainable environment.
- DM Policy 2009 also talks about Climate Change Adaptation, protecting reserves, coastal areas. It talks about natural disasters and their increasing frequency.
- Mr. Mahendra Rajaram emphasised on the importance of continuous capacity building since every five years the officials of Gram Panchayats change. This will ensure that they are able to integrate science, technology and Eco DRR issues into their Gram Panchayat plans.
- Bringing the necessary budget and project in the DM plans so that it can be implemented is a challenge for the people working at the ground level.
- There is a mandate in DM Act 2005, Section 40 and 41 that provides for Gram Panchayat local administration to undertake activities related to DRR.
- Ecosystem based approaches are cost effective solutions that represent a significant opportunity to promote and to mainstream it into general adaptation, DRR and development planning of the country.
- CCA and DRR have very similar aims in terms of seeking to build resilience in the face of hazards.

- Climate change has increased the number of hazards and disasters. In this context, it is important for the Gram Panchayats to play a bigger role as they are the first responders at the local level.
- The Gram Panchayat Act or the Municipality Act have the provisions of DRR related activities. Eg. The Municipality Act allows to work on building codes that can be helpful in preventing encroachment of wetlands. Similarly, the Gram Panchayats also have responsibilities of protecting forests, grazing lands, lakes.
- There are limitations to GPDP plans depending on the states – amount of funding available to panchayats and strength of Gram Panchayat.
- There is a lack of uniformity in functioning of Gram Panchayat across the country. In this context, building capacity of Gram Panchayat members on development plans and Ecosystem based interventions has to be based on the HRVA of that particular Panchayat.
- Gram Panchayat plans are prepared on yearly basis and lack long term planning.

The session was then opened for Question / Answer round moderated by Ms **Jennifer Kishan** where participants sought clarifications from the panellists. **Mr. Michael Islary**, Jr. consultant, NIDM spoke about the certification process of the NIDM and Sphere India training programs. **Mr Altamash Khan**, Program Coordinator, CA, Sphere India provided the backend and technical support in conducting the session.

The session concluded with a Vote of Thanks and Announcements from the Moderator, Ms **Jennifer Kishan**, Program Manager, Collaborative Advocacy, Sphere India. The total registered participants were 107.

3 Days Webinar on Pilot Testing of Ecosystem-based DRR Module-2
29 Nov – 1 Dec. 2021

30 November, 2021 – Day 2, Jammu & Kashmir

Summary

The 2nd day of webinar on Pilot testing of Ecosystem-based DRR Module-2, a joint initiative of NIDM and Sphere India was organised on 30th November, 2021. It had eminent speakers including Mr Majid Farooq, Mr Mahendra Rajaram, Dr Sweta and others

The programme started with a joint welcome of all participants and dignitaries by **Ms Jennifer Kishan**, Program Manager, Sphere India.

Mr. Majid Farooq, **Scientist/Coordinator, Climate Change Centre, Govt. of J&K** presented on *Risk & Vulnerability Analysis for focussed Adaptation and Mitigation Strategies*. He discussed earth's biodiversity and impact of Climate Change on it. He stated:

- By 2050, 9 billion people would have to be fed as compared to 7 billion people in 2021. It will cause 19% increase of agricultural water consumption (including both rain fed and irrigated).
- 54% of India's ground water wells are decreasing.
- By 2030, 9 out of 10 of the major crops will experience reduced or stagnant growth rates.
- He discussed about Food, water and energy security nexus in Himalaya. 4 out of 34 Global biodiversity hotspots are located in Hindu Kush Himalayas.
- Entire Himalaya is a multi-hazard environment and there is an increasing trend in occurrence of disasters there. Technology is one of the key factors behind it.
- He also discussed about Indicators of Climate change in Kashmir - Temperature, Precipitation, Glaciers, Hydrology, Treeline changes etc.
- There has been change in the extent of *Kolhoi* Glacier from 1911-2014. It is the major source of fresh water in Kashmir valley.
- He then explained the vulnerability and the methodology of calculating it. The first step in Adaptation to future climate change is to reduce vulnerability and Exposure to present Climate Variability.
- More is the literacy rate, more people would be able to understand disaster related messages and awareness.
- The Vulnerability Assessment can help decision makers in taking right decisions related to DRR investments. Its objectives include identifying the drivers of vulnerability and identifying the priority areas of resource allocation.
- It takes 6-7 years for excavated lands for the purpose of brick making to recover and regain its fertility.
- In order to make resilient villages in mountains, it is important to study and do research on achieving climate Resilience, socio-economic resilience and future resilience.

- There are challenges to addressing Climate Change as well as to achieving Resilience/Adaptation.
- He concluded by highlighting that there is uncertainty on climate change manifestations despite being certain about climate change.

Dr. Sweta Baidya Das, **Consultant, ECDRM, NIDM** discussed few *Global case studies and examples related to Eco DRR*. She discussed some of the real life examples of how people have been benefited with Eco DRR interventions or the Nature Based Solutions in their countries for solving problems. She showed examples of Nature friendly Dyke in Denmark; Building with Nature in Indonesia.

- Eco-DRR measures in river/flood plain in Mahanadi Delta of India with the help of Wetlands International and their Civil Society partners and community.
- China's Sponge Cities, an initiative launched in 2015, is piloting ecologically friendly alternatives to traditional flood defences and drainage systems in 16 cities across China.
- Ecosystem protecting infrastructure and communities (EPIC): Eco Safe roads for enhancing Resilience of communities in Nepal.
- Using flood - Based livelihoods to restore the flood retention Ecosystem function of the Mekong Delta in Vietnam.
- The National Greening Programme of the Philippines to reduce poverty, promote food security, create alternative livelihoods and enhance climate change mitigation and adaptation.
- Local level Eco DRR in Myanmar.

Mr Mahendra Rajaram, **Sr. DRR officer, UNICEF South India** spoke on *Integrating Eco DRR into GPDP Planning*. He spoke of addressing Gram Panchayat interventions. He gave references of documents on Disaster Management, Climate Change, implementing the Gram Panchayat Act.

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- There are limitations to GPDP plans depending on the states – amount of funding available to panchayats and strength of Gram Panchayat.
- There is a lack of uniformity in functioning of Gram Panchayat across the country. In this context, building capacity of Gram Panchayat members on development plans and Ecosystem based interventions has to be based on the HRVA of that particular Panchayat.
- Gram Panchayat plans are prepared on yearly basis and lack long term planning.

Mr Harshit Sharma, **Young Professional, NIDM** spoke on *Nature Based Solutions & Climate Crisis*. Nature has a big role to play. Evidence increasingly suggest that NbS, natural systems or processes use to help achieve societal goals and contribute mightily in minimising climate change and its effects.

- Research shows that NbS and broader land sector could contribute to 30% of the climate mitigation needed by 2050 to meet the Paris Agreement objectives of limiting Global warming.
- He explained NbS as shoot of actions or policies that harness the power of nature to address some of our most pressing societal challenges, such as threats to water security, rising risks of natural disasters or climate change.
- These solutions involve protecting, restoring and sustainably managing Ecosystems in ways that increase their resilience and ability to address those societal challenges while also safeguarding biodiversity and improving human well-being.
- Mangrove forests along coastline are not only important for sustaining fisheries but also for providing protective natural barriers against erosion and storms. They filter water, provide valuable timber and food resources to coastal communities and can store huge amounts of Carbon.
- Conserving and restoring ecosystems benefits people in coastal communities by reducing vulnerability and increasing their resilience to the effects of climate change.
- He also explained the difference between conservation and Nature Based Solutions.
- Examples of NbS include protecting coral reefs since a healthy coral reef decimate wave energy, protection for low lying communities and shoreline against floods, storms and erosion.
- Forests are one of the finest examples of Nature Based Solutions that are home to 80% of terrestrial biodiversity and offer multiple advantages.
- NbS keeps cities cooler, supports birds and other pollinators and promotes mental and physical health of people.

- NbS directly address a potentially unsustainable over reliance on grey infrastructures.

Ms. Fatima Amin, **Young Professional, ECDRM, NIDM** spoke about the *Role of NIDM in Eco-DRR*.

- The term Eco- DRR was suggested by NIDM at the UN Campus of Germany in October, 2010 during the 'Ecosystem Livelihood and Disaster' workshop.
- UNEP started preparing training manuals. On the basis of the draft of the training manual, the first pilot workshop was organised in Columbo Sri Lanka in May 2011.
- The first international Worshop on "Ecosystem Based Disaster Risk Reduction" was conducted in December 2011 at NIDM Campus jointly with UNEP.
- NIDM started working on "Bio engineering measures for Landslide Risk Reduction". Later on works on Peri-urban ecosystems were also conducted.
- At present, CAP-RES Programme is working on Green Growth and the first conference of this programme was on "Disaster Resilience and Green Growth for Sustainable Development Proceedings"
- NIDM has also conducted Workshops on Mangroves to promote NbS.
- A special session was organised during UNCCD COP-14 to discuss, Reducing Drought Risk to improve Land-water Resilience, mainstreaming eco-DRR pathways and tools.
- Agricultural Disaster Management Plan for Ministry of Agriculture is also prepared.

The session was then opened for Question / Answer round where participants sought clarifications from the panellists. The session concluded with a Vote of Thanks and Announcements from the Moderator, **Mr Altamash Khan**.

3 Days Webinar on Pilot Testing of Ecosystem-based DRR Module-2
29 Nov – 1 Dec. 2021

1 December, 2021 – Day 3, Kerala
Summary

The 3rd and final day of Pilot testing of Ecosystem-based DRR Module-2, a joint initiative of NIDM and Sphere India was organised on 1st December, 2021 in Kerala. It had eminent speakers – Mr Amalraj M, Mr Rohit Dharmadhikari and Ms Neha Kurian.

The programme started with a joint welcome of all participants and dignitaries as well as introduction of the Eco DRR Module 2 by **Ms Jennifer Kishan**, Program Manager, Collaborative Advocacy, Sphere India.

Mr. Amalraj M, Assistant Professor, ILDM, Govt. of Kerala presented on *DRR Solutions and Eco DRR Solutions- Kerala Best Practices*. He brought back the attention to the tsunami days of 2004. He highlighted:

- Kerala is a multi-hazard prone state. In last 5-years, a number of disaster events have occurred in Kerala.
- An important learning for the state after the Tsunami was that apart from the structural mitigation measures, environment friendly restoration activities were found to be equally important.
- Post floods and Landslides in August 2018, the Govt of Kerala started initiatives like *'Nava Keralam'* with the objective to have Green and Resilient Kerala and to convert the crisis into an opportunity.
- Various interventions were used under the 13th Five Year plan, the DM Policy, state water policy, Gender equity and women empowerment policies of Kerala etc.
- Accordingly 4-pillars were identified for becoming Green and Resilient Kerala:
    I. Integrated Water source management programme (IWRM)
    II. Eco-sensitive and Risk-informed approaches to land use and settlements.
    III. Inclusive and People centred approach
    IV. Knowledge, Innovation and Technology
- The reconstruction of houses and public building using appropriate technologies could offer major opportunities for increasing skills and Green job creation.
- Climate Resilient Agriculture work and natural resource protection are being emphasized through various programmes. Joint entitlements for lands to both men and women were initiated.
- Public WhatsApp groups functioned as a real/virtual control room through which they were directly able to communicate with helicopters involved in rescue operations. Social media was also used to mobilise thousands of volunteers for one time cleaning operations.

- Web based applications like, *Rebuild Kerala* app, were developed recently for damage assessment of the houses forming the basis for compensation packages under SDRF norms.
- New initiatives were started like *Vanamaholsavam* in a bid to protect coastal areas. 1.5 lakh casuarina trees in Alappuza district were planted at a distance of 50-m from the sea with the help of respective local bodies, that has been found to be an effective bio-shield, which can minimise the impact of rough seas. Also considered ecologically important. This can further engage MGNREGS workers.
- As a way to bind the soil to prevent landslides, 2500 farmers in Idukki district are now using vetiver as border crops around their farms whose roots grow 13 feet deep and aid in binding the soil and preventing landslides.
- Eco friendly coir mat draped over the banks to stop erosion during monsoon is being practiced by farmers.
- Kochi Airport becomes world's first to completely operate on solar power. Also metro stations are getting green through vertical gardens initiative.

Mr Rohit Dharmadhikari, a **DRR expert**, spoke about *Stakeholder Analysis for Eco DRR*. He explained the components and steps of designing an Eco DRR intervention. It includes – Understanding the Socio Ecological System/landscape; Risk and Vulnerability Assessment; Identification of Eco DRR options etc. He explained:

- Stakeholder Analysis is a process of systematically gathering and analysing qualitative information.
- The analysis must include a knowledge of the policy, position or against the policy, potential alliances with other stakeholders.
- He spoke of utilities of Stakeholder Analysis.
- 8-major steps of Stakeholder Analysis were briefed on.
- Mr. Dharmadhikari spoke of the importance of participation of vulnerable populations in this activity.
- He highlighted the Role of the Government as a central coordinating agency.
- The Role of NGOs and INGOs is also important as they act as the first responders after a disaster.
- Private Sector is one of the key stakeholders as well and it is important to identify them and develop business continuity plans.

Ms Neha Kurian, **Consultant, UNEP** presented on *Upscaling Eco DRR through Employment Guarantee Scheme in India*. She explained that Ecosystem based DRR which is an integrated approach that aims to harness ecosystem services offered by natural resources for reducing or mitigating disaster risks, thus enabling more resilient and sustainable development and community-level disaster resilience. She stated:

- In India, Eco DRR is of utmost importance given multiple hazards.

- There is much potential for Eco DRR approaches in India viz. Coastal protection, Drought Resilience, Urban Flood mitigation, Slope stability, Mountain Hazard Management, Forest Fire Management etc.
- MGNREGS in India is a prime case for Eco DRR intervention as it involves Natural Resource Management work (livelihood assets and infrastructure) and thus offers many co-benefits of mitigation and adaptation.
- To Mainstream Eco-DRR in Mahatma Gandhi NREGS at the National level, Capacity Building, Integration, Policy, Spatial Planning etc. is required.
- Inclusion of DRR is required as a stated objective in EGS Planning instruments (State level circulars, labour budget, and shelf of works).
- In the existing Mahatma Gandhi NREGS framework, the following recommendations can be made:
  - Risk informed planning in selection of works
  - Site selection to be done more scientifically using specialised tools including GIS
  - Specie selection to be done scientifically and utilising local traditional knowledge
  - Scope for upscaling model practices (MORD and NIRD-PR)
  - Strong Monitoring and Evaluation Framework to be done at the local and National level with an Eco-DRR perspective.

Mr Mahendra Rajaram, **Sr. DRR officer, UNICEF** was unable to join due to other commitments.

The session was then opened for Question / Answer round moderated by **Ms Jennifer Kishan**, Program Manager, Collaborative Advocacy, Sphere India where participants sought clarifications from the panellists. The session concluded with a Vote of Thanks and Announcements from **Ms Jennifer Kishan.**

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Key Recommendations

- Capacity Building activities to be taken among different stakeholder groups – capacity of LSGs, Engineers to be strengthened.
- Need for Strengthening LSGs role in disaster management using various tools - Local level DM Plans, Master Plans, regulatory instruments etc.
- Gaps in data sharing to be addressed.
- Awareness on Climate Change and Disaster Management among Gram Panchayat.
- Necessary funding, technological and scientific support to be given to Gram Panchayats for developing long term development plans.
- Mainstream Climate change in flagship Development programmes like MG-NREGA, Integrated watershed Management Programme (IWMP), National Rural Livelihood Mission (NRLM), National Afforestation Program and Crop Insurance.
- *Sponge Cities* initiative can also be implemented in India to prevent water crisis in future.
- Engage people into Greening Programs to develop a sense of connection and ownership.
- Incorporate Coastal shelter belt plantations and Raise ecological balance in Himalayan regions.
- Create awareness on Climate Change and Disaster Management among Gram Panchayats.
- Provide necessary funding, technological and scientific support to Gram Panchayats that can help in developing long term development plans.
- Maintain and Restore Nature Based Solutions but to the same extent as their grey counterparts.
- DRR communities can collaborate with NIDM in preparations of Agricultural Disaster Management Plan.
- Kerala's Best Practices could be a good Case study for the entire country to come up with green initiative.
- Read through sustainability report.
- Involvement of NGOs as they are first responders and also help government in policy making.
- Importance of Private sector involvement to develop business continuity plans; innovative products based on business, technology and expertise; provide and share technical knowledge, skills and resources in the field of disaster preparedness.
- Need to mainstream Eco DRR in Mahatma Gandhi NREGS
- Ensure that all projects undertaken through MGNREGS do not inadvertently increase disaster risks, including social, physical and economic and environmental vulnerabilities.
- Effective convergence with other schemes including *Pradhan Mantri Krishi Sinchayi Yojana* (PMKSY - Watershed component), *Pradhan Mantri Gram Sadak Yojana* (PMGSY).

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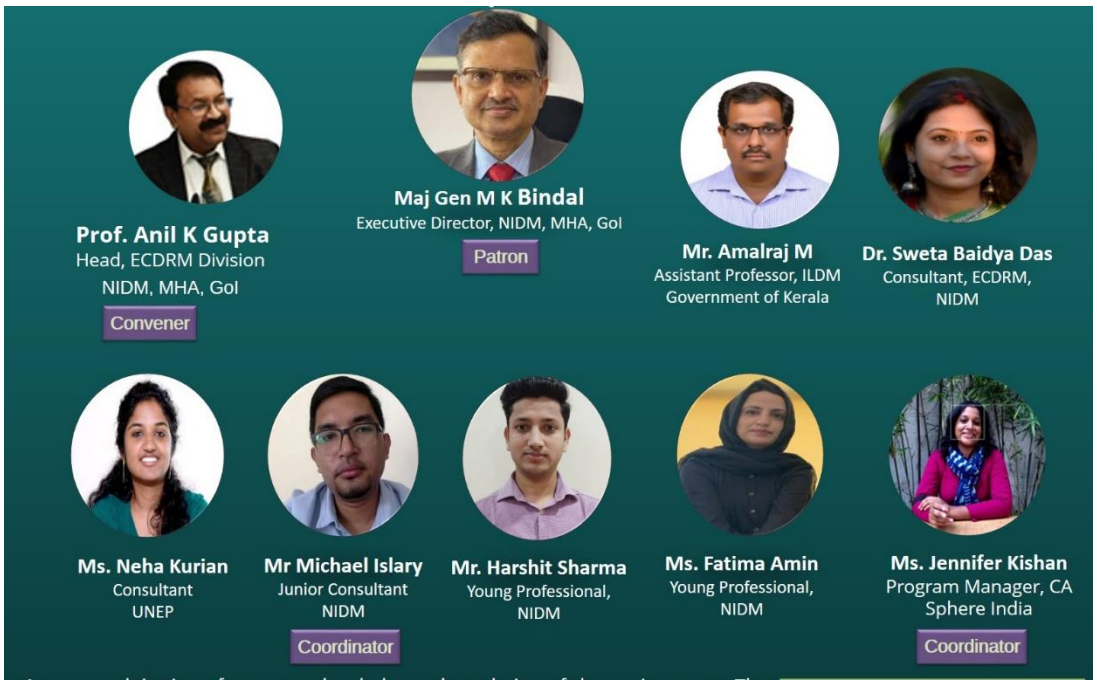
Organising Team



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29 Nov – 1 Dec. 2021

Photograph

Day – 1, Bihar


Recording...
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Sphere India
National Coalition of Humanitarian Agencies in India
Stakeholder Analysis for Eco-DRR
Rohit Dharmadhikari
nidm
Resilient India - Disaster Free India
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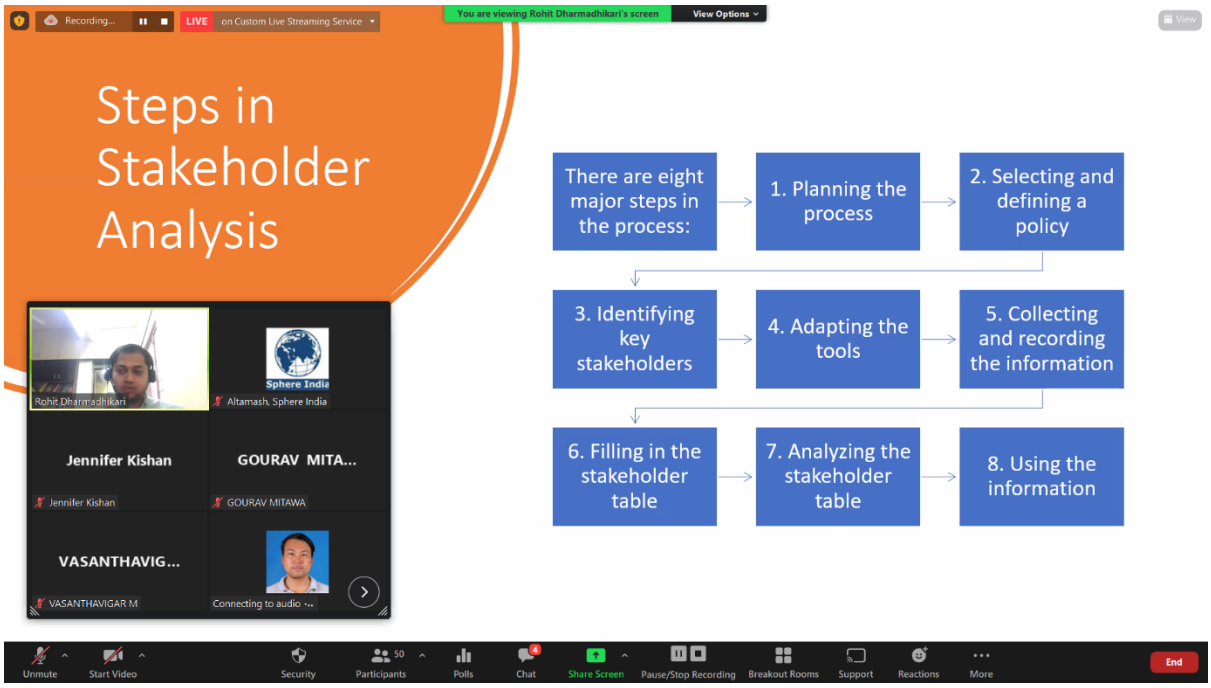
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Steps in Stakeholder Analysis
There are eight major steps in the process:
1. Planning the process
2. Selecting and defining a policy
3. Identifying key stakeholders
4. Adapting the tools
5. Collecting and recording the information
6. Filling in the stakeholder table
7. Analyzing the stakeholder table
8. Using the information
Rohit Dharmadhikari
Altamash, Sphere India
Jennifer Kishan
GOURAV MITA...
VASANTHAVIG...
Connecting to audio
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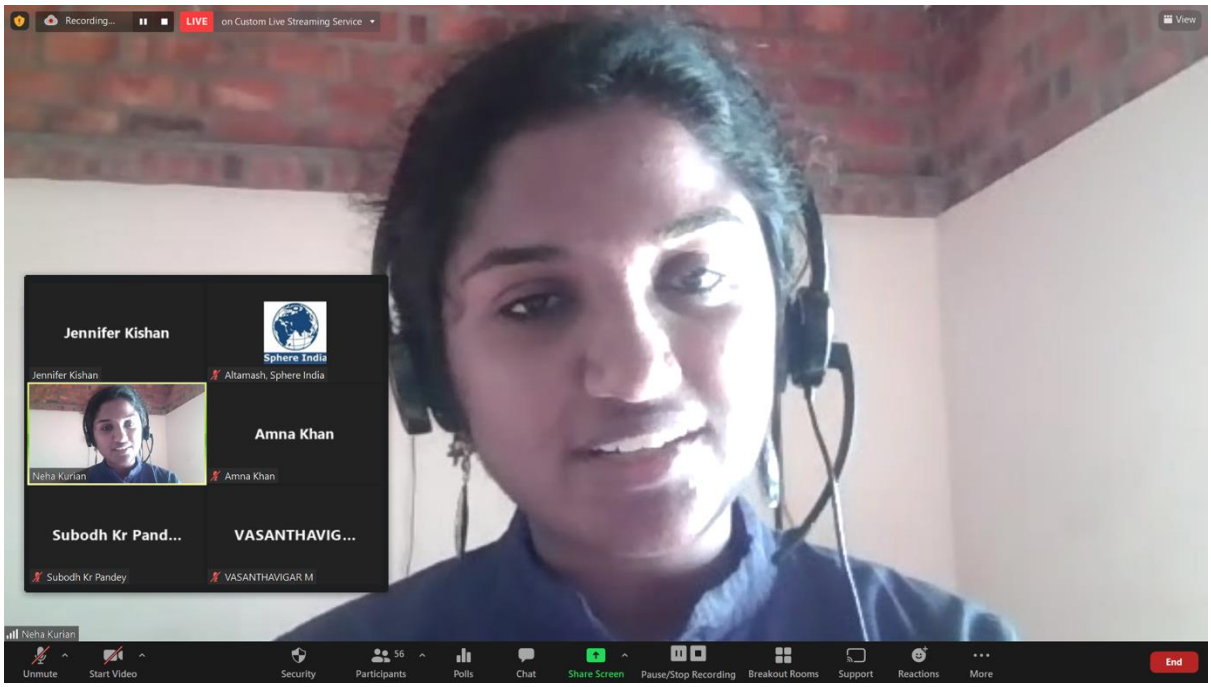
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Jennifer Kishan
Jennifer Kishan
Sphere India
Altamash, Sphere India
Neha Kurian
Amna Khan
Amna Khan
Subodh Kr Pand...
Subodh Kr Pandey
VASANTHAVIG...
VASANTHAVIGAR M
Neha Kurian
Unmute
Start Video
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Polls
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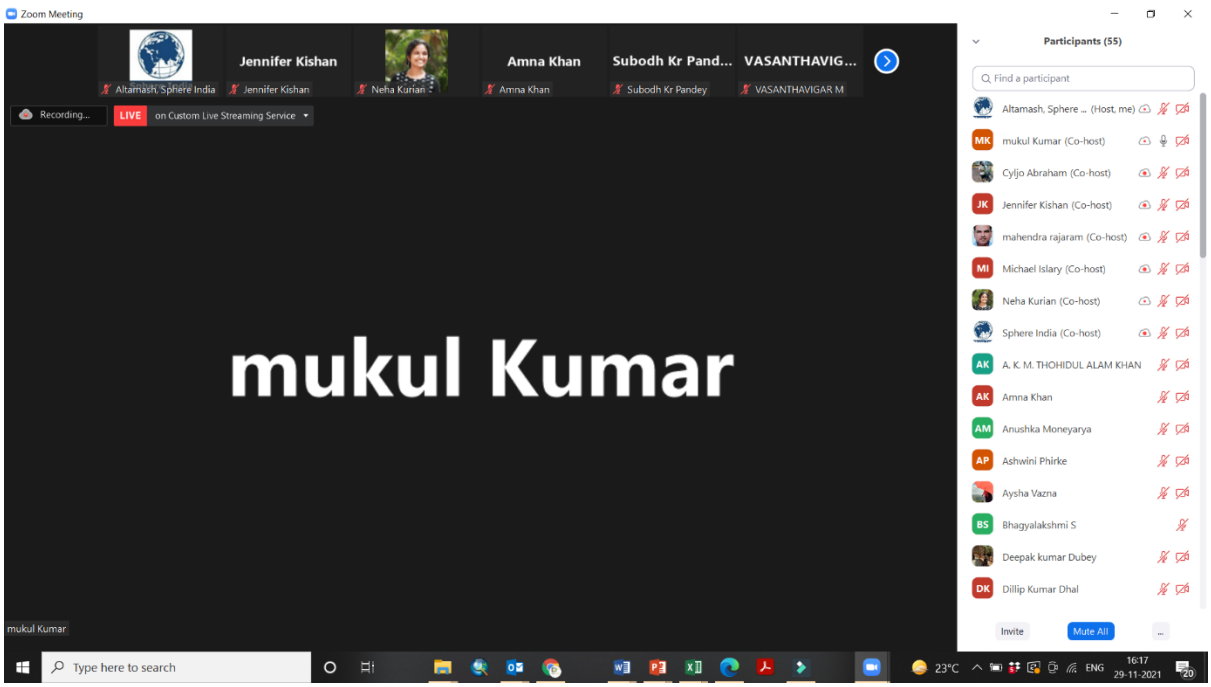
Share Screen
Pause/Stop Recording
Breakout Rooms
Support
Reactions
More
End


Zoom Meeting
Jennifer Kishan
Amna Khan
Subodh Kr Pand...
VASANTHAVIG...
Altamash, Sphere India
Jennifer Kishan
Neha Kurian
Amna Khan
Subodh Kr Pandey
VASANTHAVIGAR M
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mukul Kumar
mukul Kumar
Participants (55)
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Altamash, Sphere ... (Host, me)
mukul Kumar (Co-host)
Cyljo Abraham (Co-host)
Jennifer Kishan (Co-host)
mahendra rajaram (Co-host)
Michael Islary (Co-host)
Neha Kurian (Co-host)
Sphere India (Co-host)
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Amna Khan
Anushka Moneyarya
Ashwini Phirke
Aysha Vazna
Bhagyalakshmi S
Deepak kumar Dubey
Dillip Kumar Dhal
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nidm
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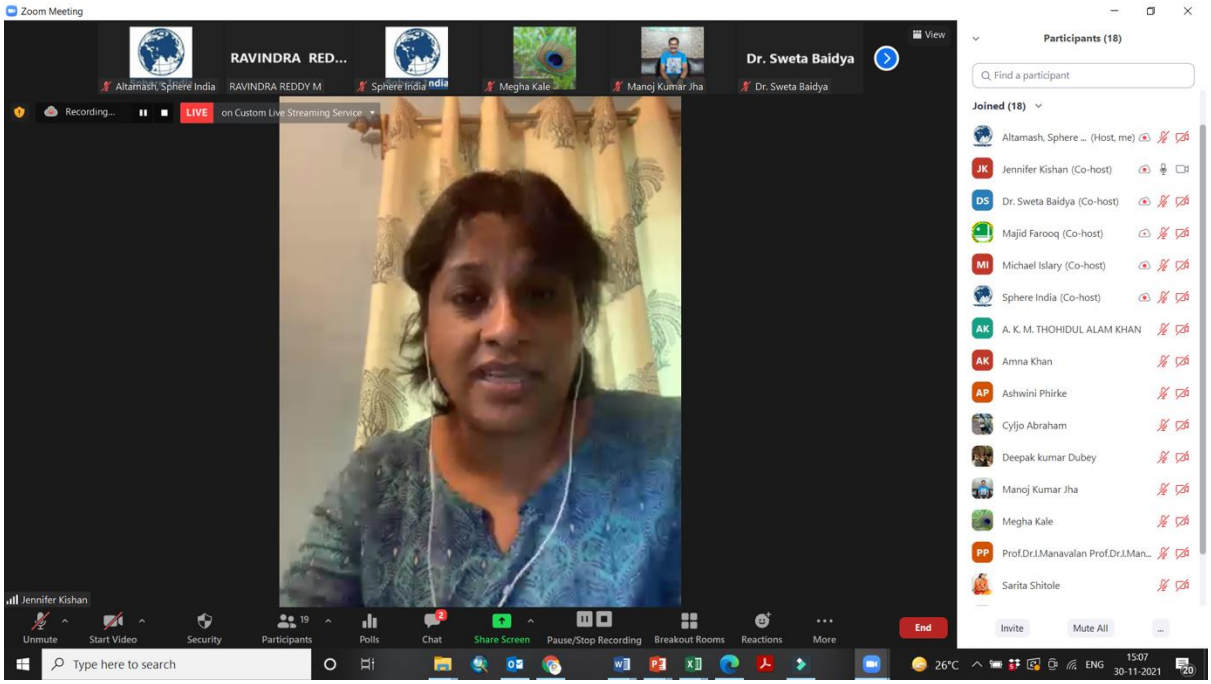
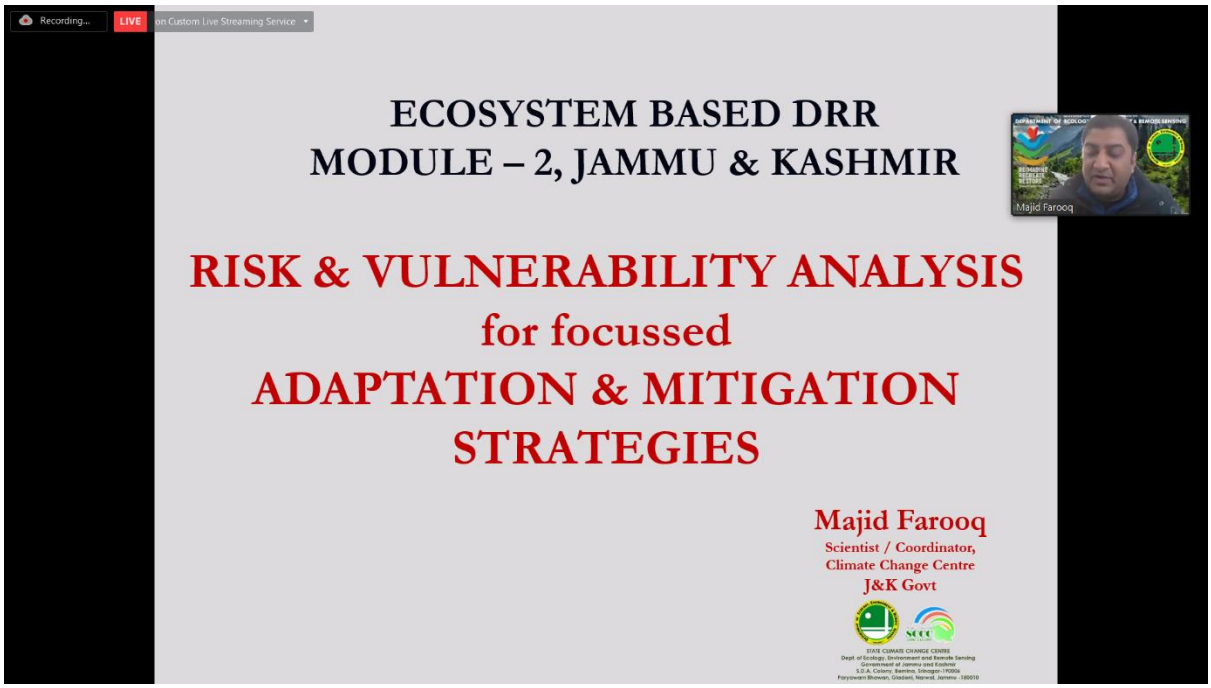
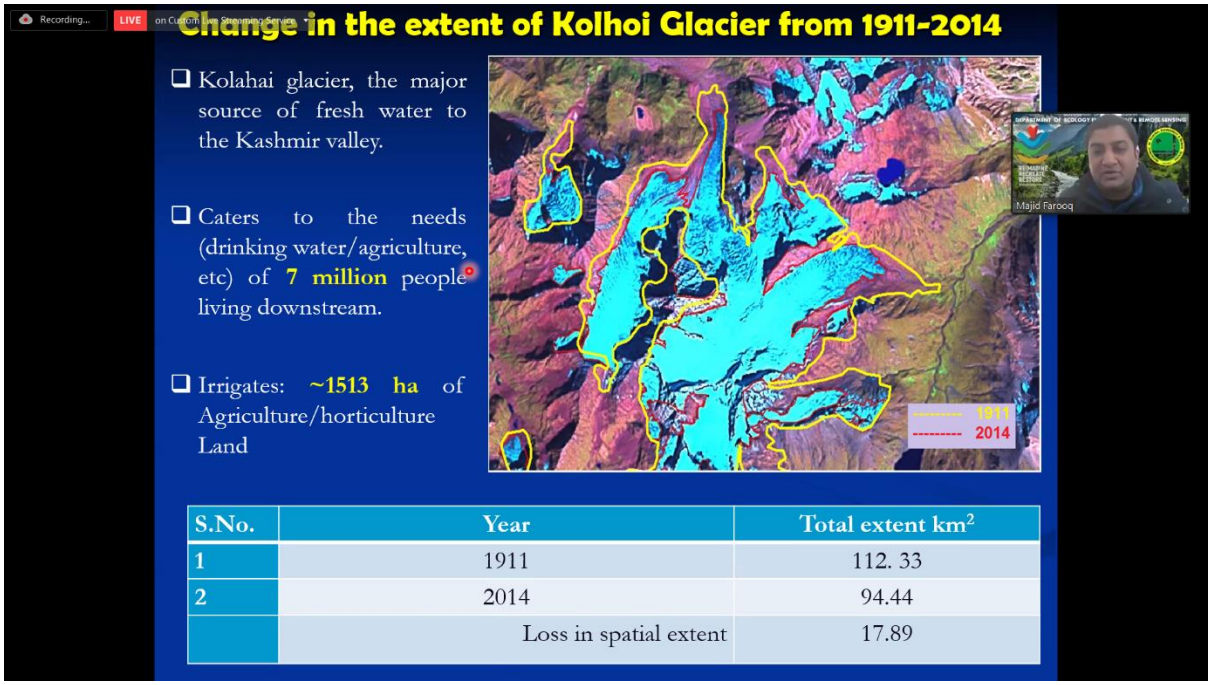
Sphere India
National Coalition of Humanitarian Agencies in India

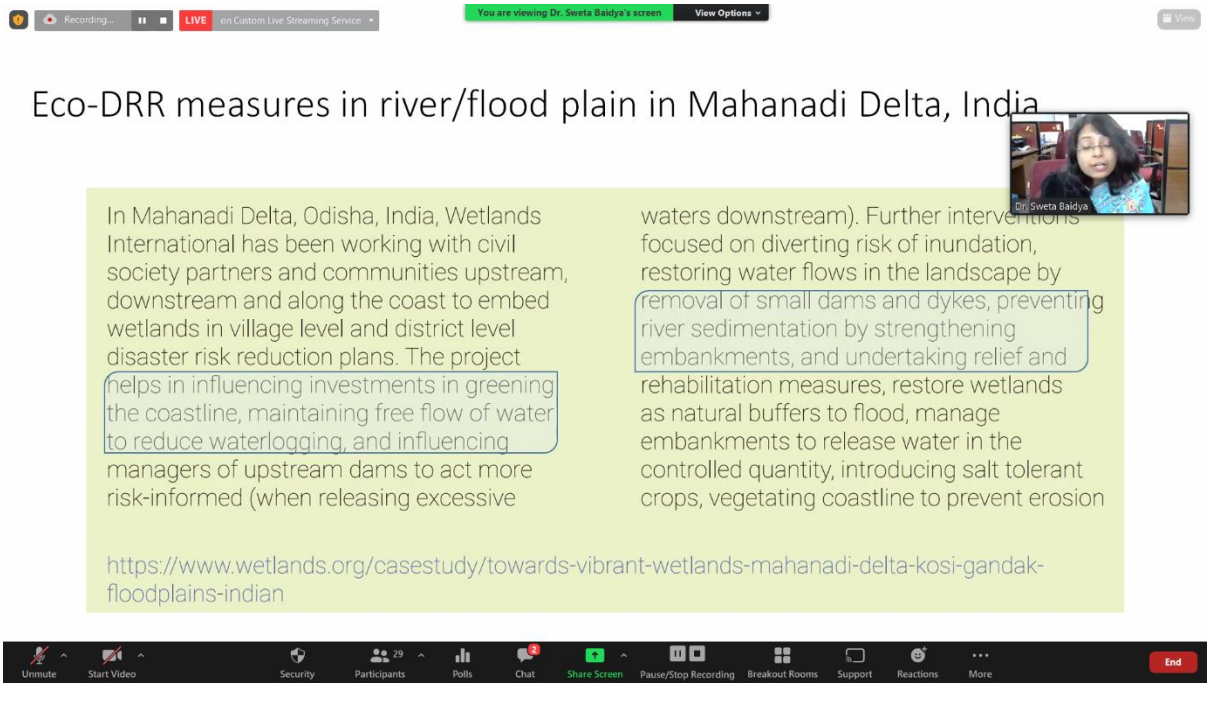
Day – 2, J&K







S.No.	Year	Total extent km^2
1	1911	112. 33
2	2014	94.44
	Loss in spatial extent	17.89

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Integrating Eco DRR into GPDP Planning
29 November 2021
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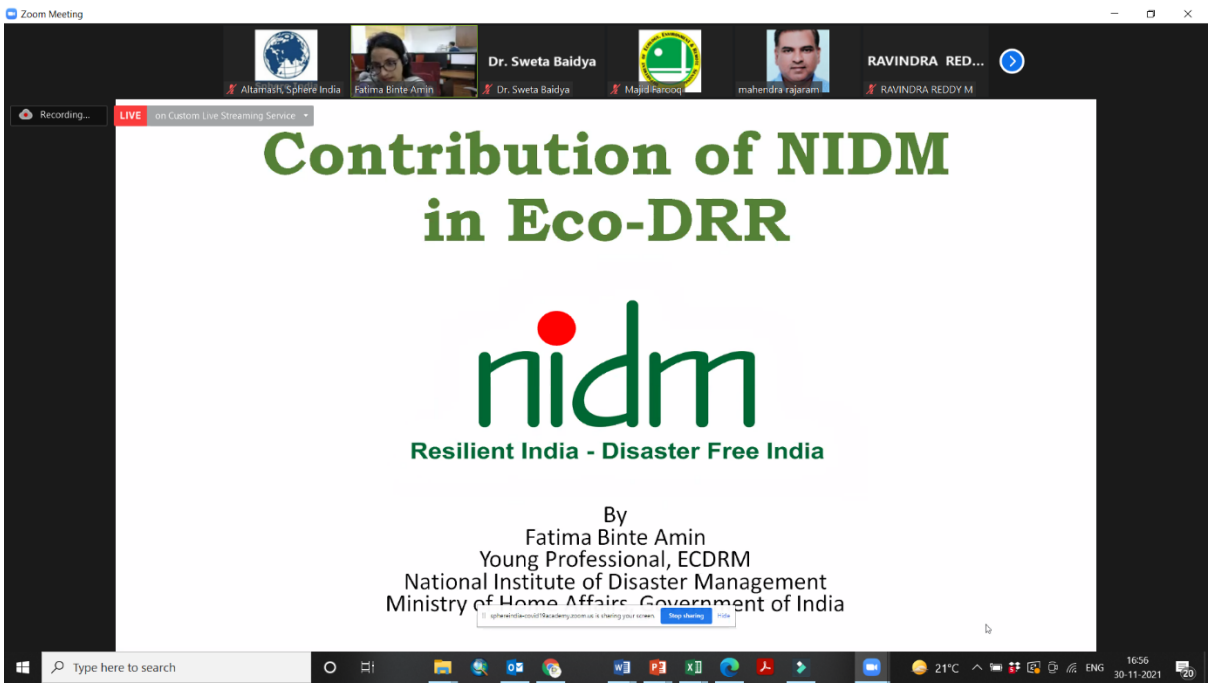
Zoom Meeting
Altamash, Sphere India
Fatima Binte Amin
Dr. Sweta Baidya
Dr. Sweta Baidya
Majid Farooq
maheridra rajaram
RAVINDRA RED...
RAVINDRA REDDY M
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Contribution of NIDM
in Eco-DRR
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Resilient India - Disaster Free India
By
Fatima Binte Amin
Young Professional, ECDRM
National Institute of Disaster Management
Ministry of Home Affairs, Government of India
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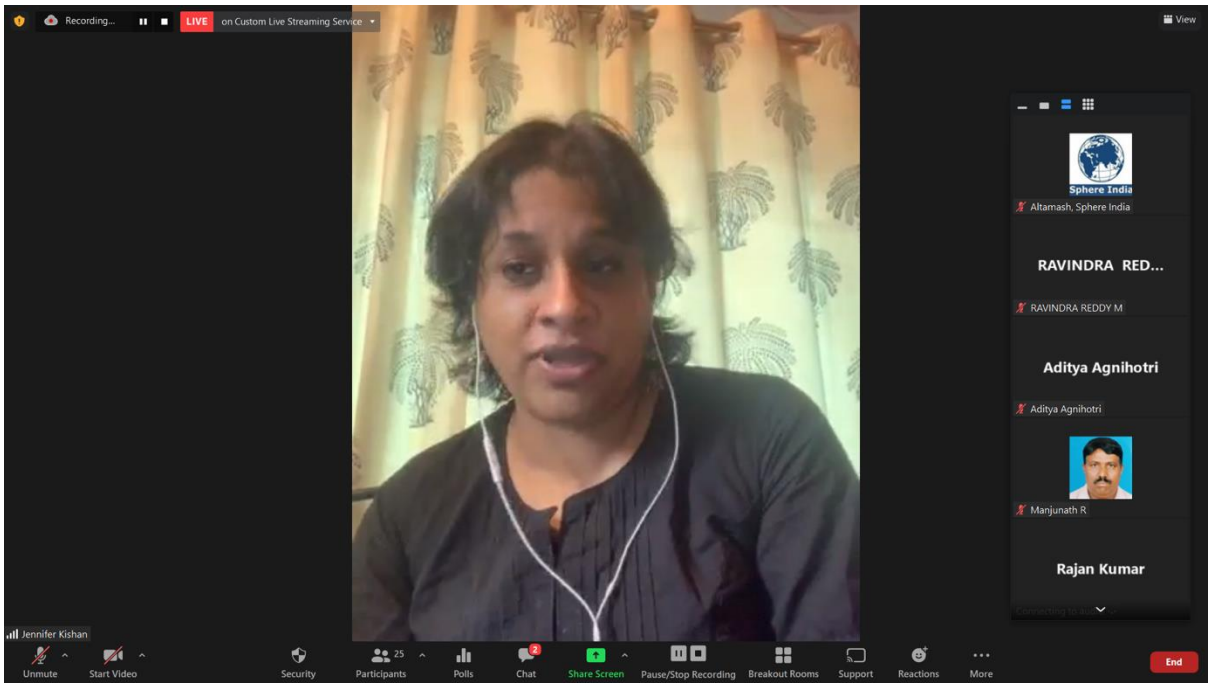
30-11-2021

DAY – 3, Kerala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Sphere India
Altamash, Sphere India
RAVINDRA RED...
RAVINDRA REDDY M
Aditya Agnihotri
Aditya Agnihotri
Manjunath R
Rajan Kumar
Jennifer Kishan
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Pause/Stop Recording
Breakout Rooms
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Reactions
More
End


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Sphere India
Altamash, Sphere India
Jennifer Kishan
Jennifer Kishan
Aditya Agnihotri
Aditya Agnihotri
Shoba N
Shoba N
RAVINDRA RED...
Amalraj M
Unmute
Start Video
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Polls
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Breakout Rooms
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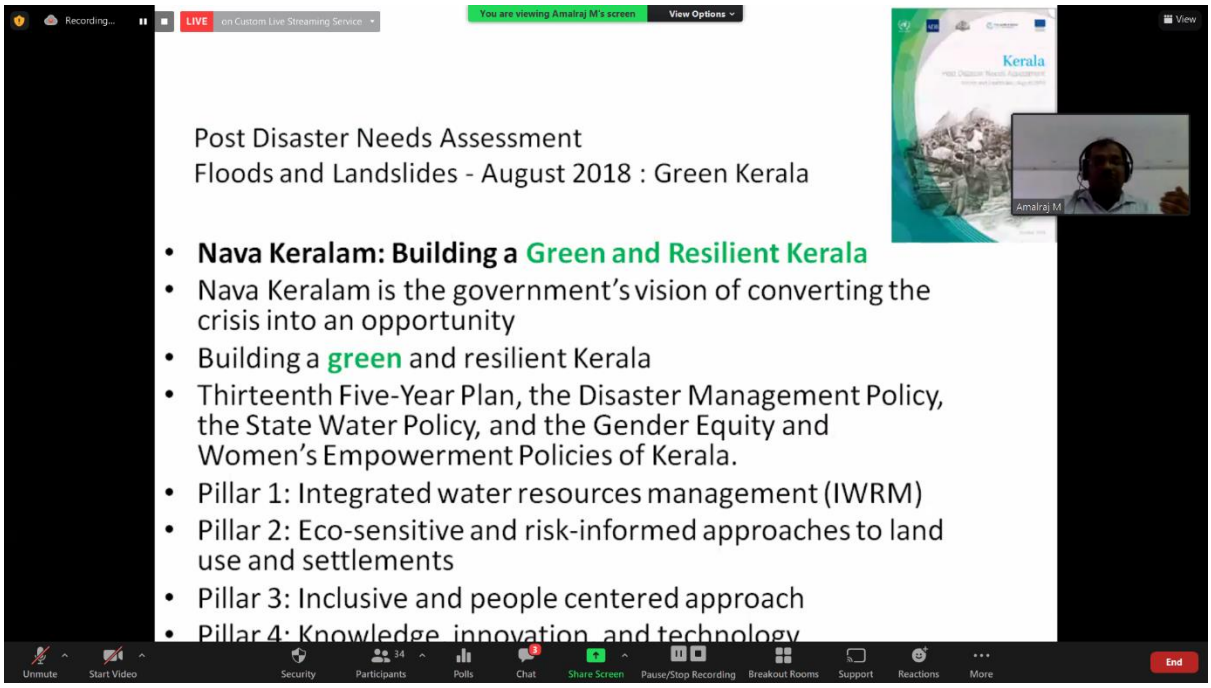
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Post Disaster Needs Assessment
Floods and Landslides - August 2018 : Green Kerala
• Nava Keralam: Building a Green and Resilient Kerala
• Nava Keralam is the government's vision of converting the crisis into an opportunity
• Building a green and resilient Kerala
• Thirteenth Five-Year Plan, the Disaster Management Policy, the State Water Policy, and the Gender Equity and Women's Empowerment Policies of Kerala.
• Pillar 1: Integrated water resources management (IWRM)
• Pillar 2: Eco-sensitive and risk-informed approaches to land use and settlements
• Pillar 3: Inclusive and people centered approach
• Pillar 4: Knowledge, innovation, and technology
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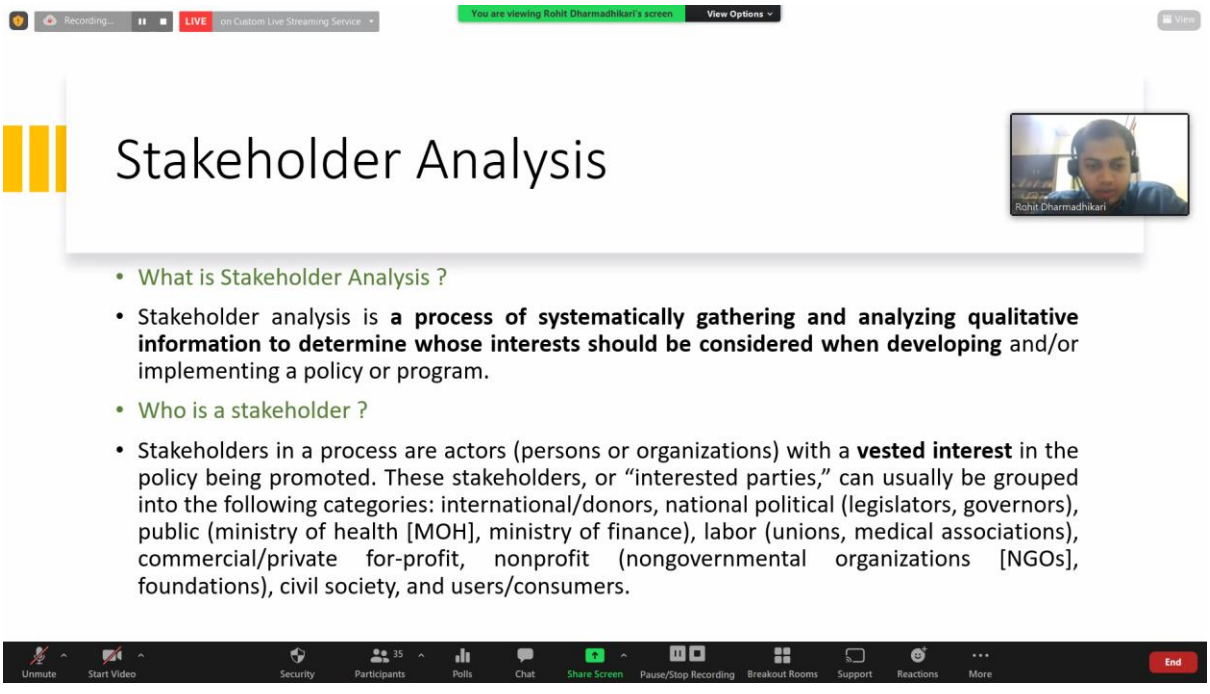
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You are viewing Rohit Dharmadhikari's screen
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Stakeholder Analysis
Rohit Dharmadhikari
• What is Stakeholder Analysis ?
• Stakeholder analysis is a process of systematically gathering and analyzing qualitative information to determine whose interests should be considered when developing and/or implementing a policy or program.
• Who is a stakeholder ?
• Stakeholders in a process are actors (persons or organizations) with a vested interest in the policy being promoted. These stakeholders, or "interested parties," can usually be grouped into the following categories: international/donors, national political (legislators, governors), public (ministry of health [MOH], ministry of finance), labor (unions, medical associations), commercial/private for-profit, nonprofit (nongovernmental organizations [NGOs], foundations), civil society, and users/consumers.
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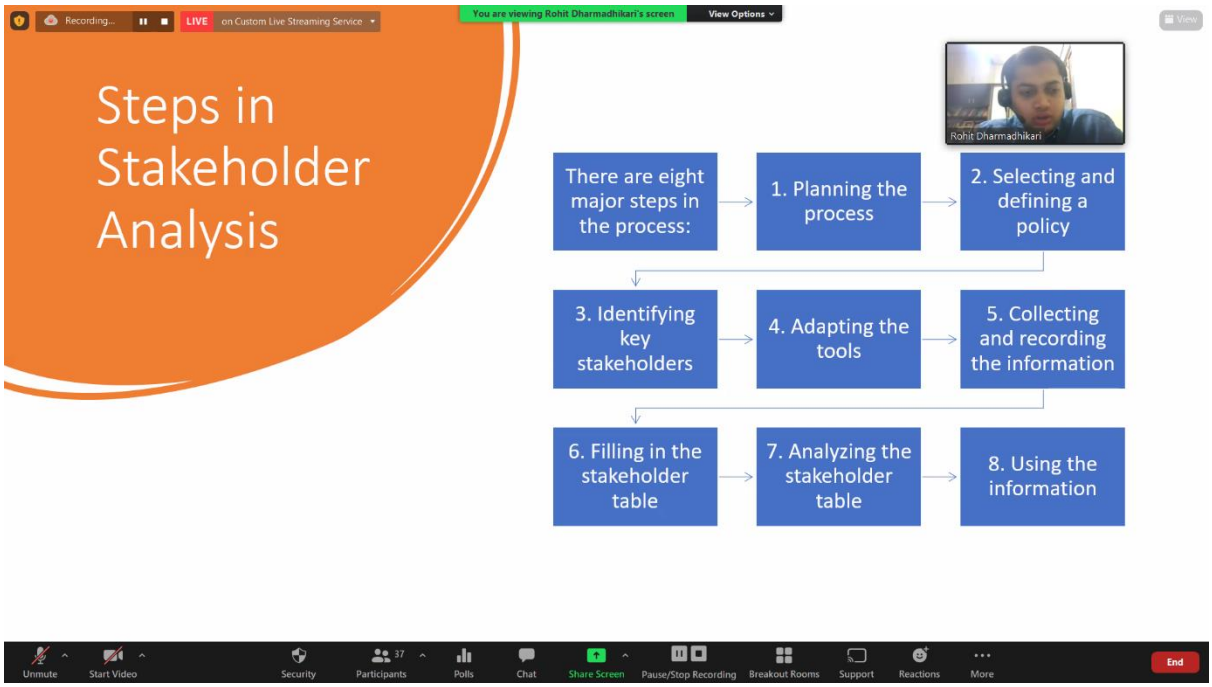
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Steps in Stakeholder Analysis
Rohit Dharmadhikari
There are eight major steps in the process:
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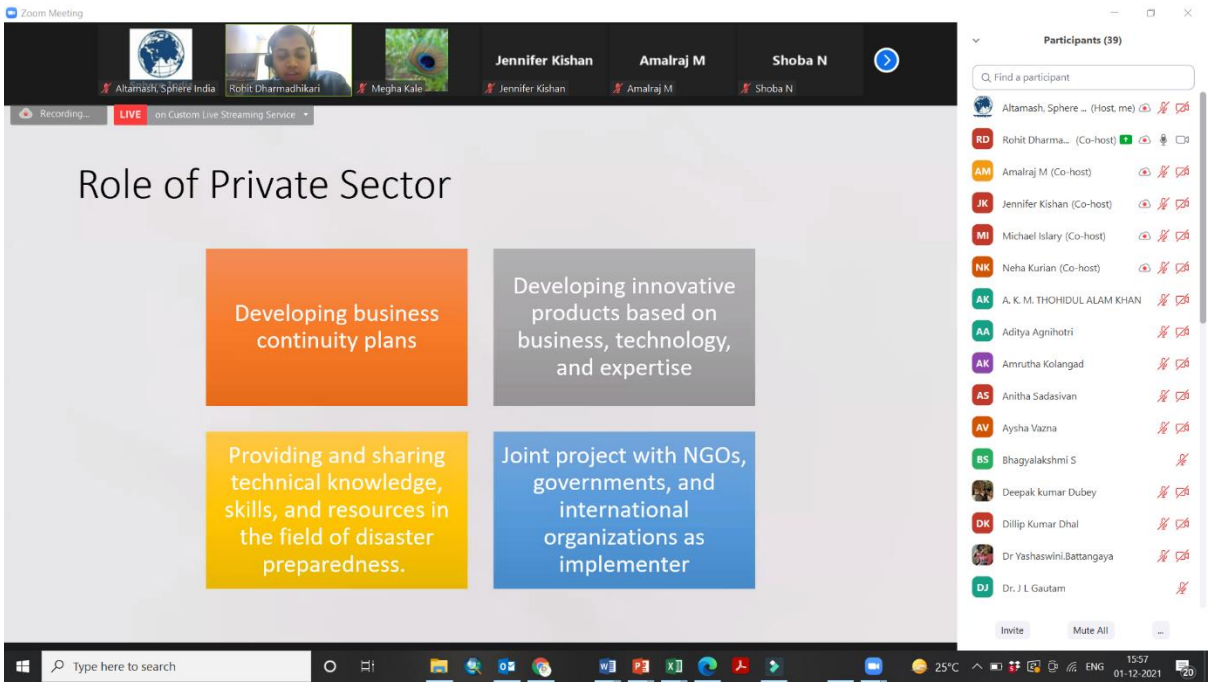
Zoom Meeting
Altamash, Sphere India
Rohit Dharmadhikari
Megha Kale
Jennifer Kishan
Amalraj M
Shoba N
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Role of Private Sector
Developing business continuity plans
Developing innovative products based on business, technology, and expertise
Providing and sharing technical knowledge, skills, and resources in the field of disaster preparedness.
Joint project with NGOs, governments, and international organizations as implementer
Participants (39)
Find a participant
Altamash, Sphere ... (Host, me)
Rohit Dharma... (Co-host)
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Jennifer Kishan (Co-host)
Michael Islary (Co-host)
Neha Kurian (Co-host)
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Aditya Agnihotri
Amrutha Kolangad
Anitha Sadasivan
Aysha Vazna
Bhagyalakshmi S
Deepak kumar Dubey
Dilip Kumar Dhal
Dr Yashaswini.Battangaya
Dr. J L Gautam
Invite
Mute All
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01-12-2021

UN environment programme

Upscaling ECO-DRR through Employment Guarantee Schemes in India

Neha Miriam Kurian
Consultant
United Nations Environment Programme

3

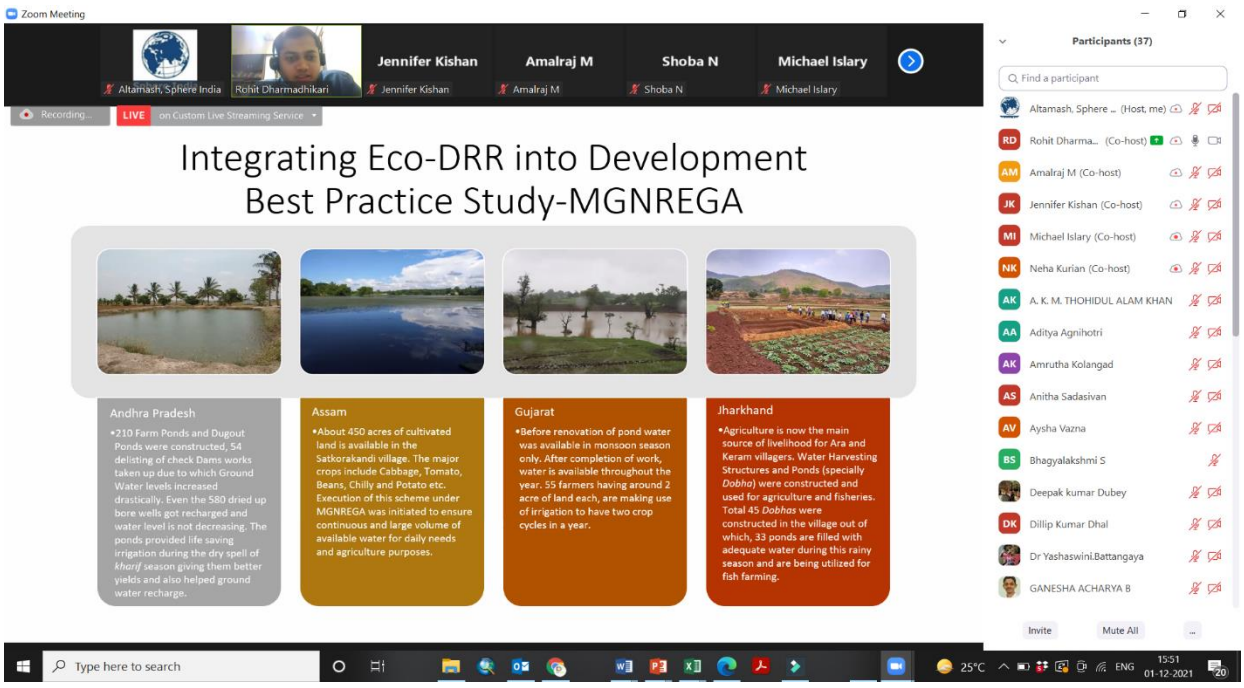
Eco-DRR in India – utilising Ecosystem services

12/3/2021

Mahatma Gandhi NREGS in India is a prime case for Eco-DRR because:

- Provide at least 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work.
- It is implemented by local bodies using Central Government funds (allocation of 73,000 Crore in 2021-22)
- They involve Natural Resource Management Works (livelihood assets and infrastructure)
- They offer many Co-benefits- mitigation and adaptation of climate change

5



Resilient India - Disaster Free India

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Sphere India
National Coalition of Humanitarian Agencies in India

3 Days Webinar on Pilot Testing of Ecosystem-based DRR Module-2

29 Nov – 1 Dec. 2021

Video Recording on YouTube

(Link is hyperlinked with the following flyer)

29 Nov. 2021	30 Nov. 2021	1 Dec. 2021
		
https://youtu.be/WI_M4bivBqY	https://youtu.be/TK7aXXi6HAk	https://youtu.be/xUaVB13m_OE

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Sphere India
National Coalition of Humanitarian Agencies in India

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