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Presentation of working group members by:

- ❖ Dr. Subhasis Bhadra, Prof., Department of Social Work, Central University of Rajasthan, Rajasthan.
- ❖ Dr. Pratheesh P, Assistant Professor, Central University of Kerala.
- ❖ Dr. KIRAN JALEM Assistant Professor National Institute of Rural Development & Panchayati Raj, Hyderabad.
- ❖ Shri Naveen Maheshkumar Agrawal, Registrar, DADA Ramch and Bakahru Sindhu Mahavidyalaya, Nagpur, Maharashtra.
- ❖ Shri. Kosygin Leishangthem, Assistant Professor, Manipur Technical University, Meghalaya
- ❖ Dr Dharmaveer Singh, Assistant Professor, Symbiosis Institute of Geoinformatics, Symbiosis International, Pune, Maharashtra.
- ❖ Dr. Amit Sinha, Assistant Professor, Shri Ramswroop Memorial University, Barabanki, Uttar Pradesh

4. Draft Structure of the Curriculum

5. List of Participants

Background

The increased exposure of countries to both natural and man-made hazards poses a threat to lives and sustainable development efforts. By 2030, India is committed to reduce the disaster impact on life and property to its minimum and hence given its global commitment for achieving the set targets and goals of Sendai framework by 2030. Its huge task to be achieved in a very short period of time by building as sustainable system. This is possible when we build capacity of students on DRR so that the impact of future disasters can be minimize. To effectively reduce disaster risks for communities, we need to recognize the important role education plays in reducing vulnerability and building resilience. Education can be instrumental in building the knowledge, skills, and attitudes necessary to prepare for and cope with disasters, as well as in helping learners and the community to return to a normal life. Hence, there is need of compulsory curriculum that has included elements of disaster risk reduction to build the knowledge, skills and capacity of the young generation. The goal of the IUIN-DRR, NIDM is to captures national experiences whilst noting key challenges in the field of disaster and to develop a compulsory paper / curriculum for under graduate students to build capacity of the maximum young population in India.

Situational Analysis

India is one of the most disaster-prone countries of the world. The factors accelerating the intensity and frequency of disasters are responsible for heavy toll of human lives and disruption of the life support system in the country. Many parts of the Indian subcontinent are susceptible to different types of disasters owing to the unique topographic and climatic characteristics. About 54% of the subcontinent's landmass is vulnerable to earthquakes, whereas about 12% is vulnerable to floods, 28% is vulnerable to droughts, and 8% of the land is vulnerable to cyclones. India is mostly prone to floods causing a number of deaths and property loss which affect the overall development of the country.

The increased incidences of disasters in the recent decades as well as increase in the awareness of disasters and related phenomena have generated the need to produce systematic knowledge on all aspects of disasters. Since the past two decades, the need and importance of scientifically validated knowledge on disasters has been felt. It is also a fact that universities, as a citadel of knowledge, are the right places where such scientific knowledge can be cumulatively and fruitfully generated.

In this direction, Hon'ble Prime Minister 10 points and agenda 6 focused on the role of higher education in strengthening the field of disaster management in India. Further, UGC also has issued the notification vide letter No. 24-1/2016 (CPP-II) dated 4th October, regarding compulsory course implementation on the subject Disaster Management for all students to minimize the risk of disasters, which all includes i) Bomb Threat ii) Earthquake iii) Explosion, iv) Hazardous material spill/release, v) Campus Shooting vi) Terrorist incidence vii) Financial emergency.

Introduction to the Programme

Objective:

- Based on the above context, the consultative workshop has the following objectives:
- To discuss the thematic issues for curriculum on DRR at UG level
- To discuss draft structure on curriculum which can be integrated in all subjects
- To formulate minimum standard curriculum on the basis of working group inputs on DRR for under graduate students of every streams of higher education

• Programme Schedule

Time	Session	Speaker/Expert
03.00- 03.05	Welcoming Address	Dr. Preeti Soni, Senior, Programme, Consultant, India Universities and Institution Network on Disaster Risk Reduction (IUINDRR), National Institute of Disaster Management ,Government of India
03.5 – 3.10	Key note address	Major General Manoj Kumar Bindal,, Executive Director, National Institute of Disaster Management ,Government of India
3.10- 3.20	Special key note address	Dr. Surender Singh, Joint Secretary, University Grant Commission, Delhi, India
3.20-3.30	Sharing objectives of the programme and Setting up agenda	Prof. Santosh Kumar, Head, GIDRR, National Institute of Disaster Management ,Government Of India
3.30-5.00	Role of Higher Education in Disaster Risk Reduction in India	Shri. Shekhar Chaturvedi, Assistant Professor, National Institute of Disaster Management ,Government of India
	Existing sample curriculum on DRR	

	<p>curriculum of different stream by all working group members</p> <ul style="list-style-type: none"> • Social work/ Engineering • Geography/Management • Environmental Science/ BSc 	<ul style="list-style-type: none"> • Dr. Subhasis Bhadra, Prof., Department of Social Work, Central University of Rajasthan • Dr. Pratheesh P, Assistant Professor, Central University of Kerala • Dr. KIRAN JALEM Assistant Professor National Institute of Rural Development & Panchayati Raj, • Shri Naveen Maheshkumar Agrawal, Registrar, DADA Ramch and Bakahru Sindhu Mahavidyalaya • Dr. Kosygin Leishangthem Assistant Professor, Manipur Technical University • Dr Dharmaveer Singh Assistant Professor, Symbiosis Institute of Geoinformatics, Symbiosis International • Dr. Amit Sinha Assistant Professor, SMU , Lucknow
4.30-5.30	<p>Point for discussion:</p> <ul style="list-style-type: none"> • Minimum standards for paper • Thematic Areas of inclusion 	All members
5.30-5.55	Drafting action plan and closing remarks	Prof. Santosh Kumar, Head, GIDRR, NIDM,GOI
5.55- 6.00	Vote of thanks	Dr. Preeti Soni, SPC, IUINDRR

Session Wise Summary of the workshop



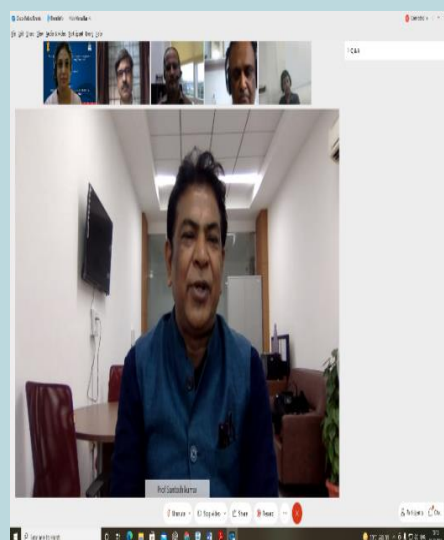
The banner features the Indian national emblem on the left and the NIDM logo on the right. The central text reads: "Consultative Workshop on Curriculum Development programme on Disaster Risk Reduction for Undergraduate Level". Below this, the date and time are given as "30th July, 2021 | 3:00 Pm – 6:00 Pm". The organizing body is listed as "Organised by India University and Institution Network on Disaster Risk Reduction (IUINDRR-NIDM) National Institute of Disaster Management (NIDM) Ministry of Home Affairs (MHA), Govt. of India". At the bottom, there is a red banner with COVID-19 safety instructions: "Stay Protected from Corona", "Wear mask properly", "Wash Hands with Soap", and "Maintain safe distance".

Inaugural

The webinar began with Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM, introducing the webinar objective and the schedule of the programme. She also welcomed the dignitaries and experts.

Welcome Address and setting the agenda of the programme

Professor Santosh Kumar, Head, National Institute of Disaster Management, Delhi welcomed the working group members and shared the agenda of the workshop. He discussed about the strategies and action plan of curriculum development on DRR. He also emphasized about the role of academicians in the field of disaster management in India. On the curriculum, he said about bringing invisible into visible environment for development of a comprehensive curriculum on disaster management and larger working consortium will be helpful in bringing up a better curriculum as people from diverse experiences can share their opinions. He also highlighted the Sendai framework Declaration which focuses on Sustainable Development Goals for combating human induced climate change. Further he said that Networking is important in order to have Disaster Risk Reduction (DRR).



While setting agenda of the workshop, he briefed that present meeting would focus on building the outline of curriculum on disaster management ,discussion on what is already been taught in universities where disaster management courses are running, Consultation on developing visual and practical curriculum and brain storming during the discussion on the common threads to actually address. A last he said that multiple meetings will be required in future to develop a comprehensive curriculum fulfilling the objective and goal of the curriculum on DRR at UG level.

Session by: Shri Shekhar Chaturvedi, Assistant Professor, NIDM



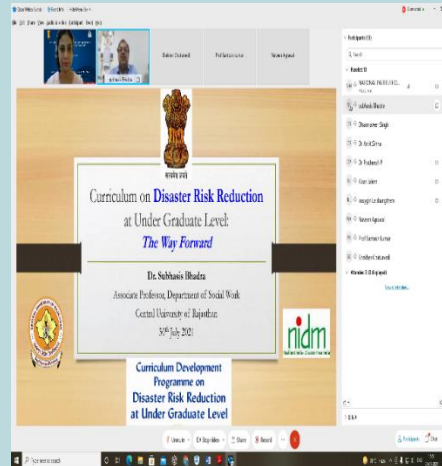
Shri Shekhar Chaturvedi, Assistant Professor, NIDM discussed the role of higher education in disaster management and challenges they faced in its implementation in India. He highlighted various intervention strategies which has been initiated by the universities for disaster risk reduction. He also discussed New Education policy in context of higher education. He gave brief about role of universities in disaster risk reduction. ”. He discussed about the role of university/ academicians on the strengthening the field of disaster management and also challenges they face for the implementation of the courses on disaster management in India. He also pointed out the new roles of universities– active players to create and transfer, unique role in public strategies, teaching disaster reduction and Challenges in new role – activities outside traditional realm of teaching and research, follow advocacy for new role within and outside university. He said that lesser trained faculty, no NET for disaster management, low student intake, no standard curriculum are major challenges for higher education. He also briefed about the advantages of universities which can use resources to strengthen the field of DRR in India such as higher educational bodies already have separate funds for new areas, they have youth force, recognized institution, learned faculty, related departments available like geography, technical and also they are capable of better local terrain knowledge. He briefed about the major Role of universities in DRR by creating knowledge through research activities, awareness of community, technological interventions, platform for innovative discussions, ground for student placements, collaborate to develop and standardize curriculum.

After brief presentation, Dr. Preeti Soni invited the working group members to share their presentation on curriculum:

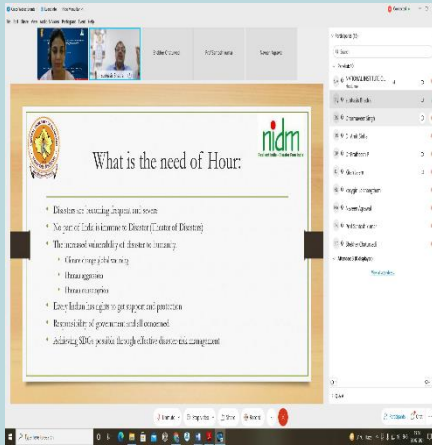
I. Presentation By by Professor Subhasis Bhadra, Central University of Rajasthan

Professor Subhasis Bhadra, Central University of Rajasthan suggested for curriculum on DRR has to optional and as per interest of the student. He gave brief presentation on curriculum on DRR and its way forward. He said that for designing course, we need to see what is the need of the hour – the kind of problems which are coming up such as,

Human aggression leads to disaster, Consumerism is increasing disaster problem and while designing curriculum there is a need to make certain hypothesis. While his presentation, he briefed about the structure and purpose of the curriculum. He focused on the following areas for inclusion into the curriculum on DRR:



- What change can come up at individual level, implement at group level?
- Curriculum should include experiential learning
- Learning material should include face to face and audio visual tools
- Dedicated faculty is required to teach
- Course should be taught in 5th semester when they have better seriousness and experience.
- The course should be optional based on the choice. It shouldn't be offered to all the students.
- The course should be provided as a 3-credit course having 3 units with 5-6 sub headings.
- Must have clear objectives of the course – building knowledge, positive attitude towards practice and individual response, skills development
- Steps of DRR must be known to the students
- Students should be able to use the knowledge and skills of DRR in personal life and professional career.
- Unit 1 of the syllabus should be based on concepts of disaster and vulnerability for DRR
- Unit 2 will talk about acts and guidelines and mechanisms to deal with disasters
- Unit 3 should talk about interventions in disasters towards sustainable development.
- Syllabus must be in the following format – Pedagogy (theory + practicum) and assessment.



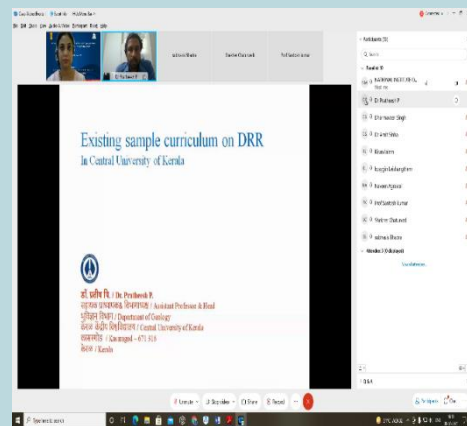
- Should talk about emerging nature of disasters, social welfare framework, rights based perspective, empowerment of community and institutions such as anganwadis, PHC/CHC, etc.
- Knowledge of book should be connected with the practical experience.
- The course shouldn't be just an addition but how institutes are connected with different organizations – NCC, NYK, Red Cross, Unnat Bharat Abhiyan – connect with DRR and let

trained students become part of it.

At last, he said that it is very important to connect with community for practicum, support agencies like fire department and create a framework.

II: Presentation by Dr. Pratheesh P, Assistant Professor, Central University of Kerala

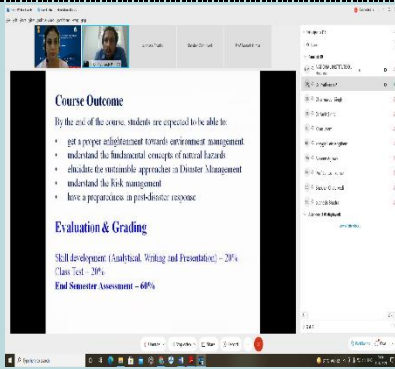
Dr. Pratheesh P, Assistant Professor, Central University of Kerala shared curriculum which central University of Kerala offering for students at every stream as an optional elective paper. He focussed that for UG level curriculum, the purpose of the curriculum has to be very clear. By the end of the course, and students are expected to be able to:



- Get a proper enlightenment towards environment management.
- Understand the fundamental concepts of natural hazards
- Elucidate the sustainable approaches in Disaster Management
- Understand the Risk management
- Have a preparedness in post-disaster response

He Talked about existing sample curriculum on DRR and briefed about the areas which may integrate under the curriculum such as:

- Development of ideas about sustainable solutions, disaster management, post disaster management
- Readiness and preparedness to students
- environmental pollution, impact management, how environment play a key role in management and disaster



- Defining the disasters – disasters, hazards, major types of disasters
- Disaster management – natural hazards and mitigation methods, literature concepts for coping vulnerability, disaster reduction, improving preparedness
- Evolution of disaster management in India after 2004 Tsunami

- History of SDMA and NDMA
- Natural disasters
- Advancement in the disaster management
- Climate change and its impact on coastal environment – global warming, sea level rising
- Coastal management and planning – coastline erosion during monsoons and currents
- Disaster management processes – response, preparedness, rehabilitation and reconstruction
- Application of IT in disaster preparedness and readiness – early warning systems
- Application of geospatial technology in disaster management
- Mental trauma
- First aid and emergency procedure – only practical part of the course
- Suggestions for national curriculum
- Should be action oriented but simple curriculum; problem centric
- Incorporate management and preparedness from natural hazards
- Manmade hazards should be separately taught
- Incorporate Post disaster activities

At last he said as it is compulsory paper, it must have 3 credit course – 48 hours course – 16 week course – 3 hour per week including 3 modules.

III Presentation by Kiran Jalem.P, Assistant Professor, Central University of Kerala

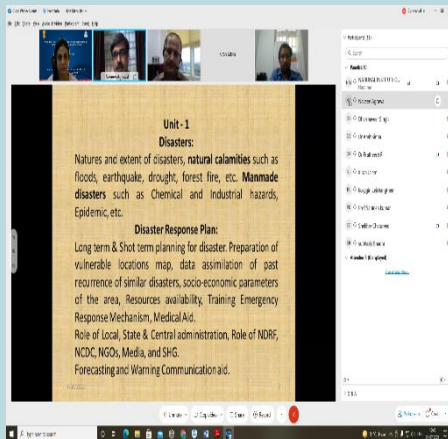
During presentation, he stressed upon following points:

- NIDM made disaster management course necessary in 2012 in UG curriculum
- Practical orientation is missing from the current curriculum – covers mainly definition, concepts and history
- India being a nation of majority of younger population, more robust practical aspect is required to be added in the course
- Geospatial applications to be used for disaster risk reduction



- Community based disaster risk reduction – visit communities, help development of GPPD, Village DMP.
- Exposure of students should be done via mock drills.
- Organizing tours and campaigns should be part of curriculum.
- Aspects to be enhanced through the curriculum – role of community and geospatial applications.

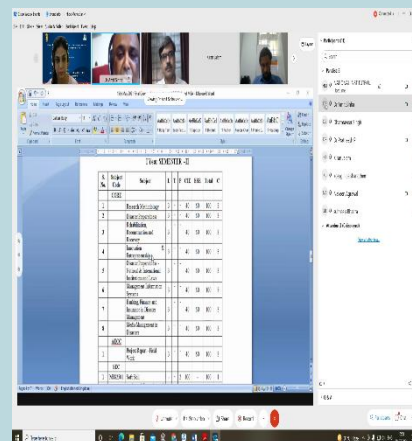
IV Presentation by Shri Naveen Maheshkumar Agrawal, Registrar, DADA Ramch and Bakahru Sindhu Mahavidyalaya



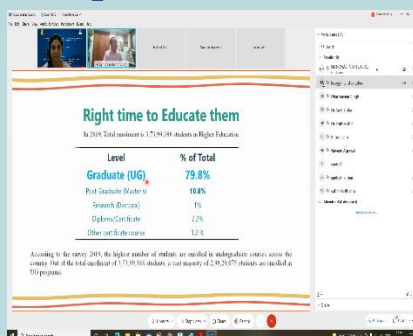
Dr. Naveen suggested that theory and practical exposure should be balanced under the curriculum, Course should be made compulsory for building the capacity of each youth on DRR, curriculum must have a simple pedagogy and it must be taught in local language. He also focussed that 80% syllabus to be standardized for pan India and 20% to be modified by the state universities based on their regional problems/disasters.

V: Presentation by Dr. Amit Sinha, Assistant Professor, Shri Ramswroop Memorial University, Barabanki, Uttar Pradesh

Dr. Amit Sinha presented curriculum which is offered by SRMU on disaster management. He discussed a Certificate and MBA degree (2 years program in 4 semesters) which is provided in disaster management. The course offers career path, it includes topics under core subjects, ability enhancement compulsory course (AECC) and skills enhancement course (SEC). He also talked about various topics included under the sub heads which cover the knowledge about disaster management.



VI: Presentation by Dr. Kosygin Leishangthem, Assistant Professor, Manipur Technical University

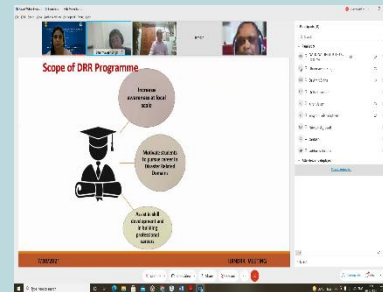


Dr. Kosygin said that 79.8% students are enrolled at undergraduate in India, curriculum on DRR at UG level is very important to reduce risk of disaster. He pointed out that since majority of the students are engaged at UG level, responsive construction techniques for disaster mitigation should be recommended at UG level. This is the right period to know this so that in 5 to 10 years when they'll construct their houses, they will be strong and disaster resistant. He talked about

course on disaster mitigation construction techniques. He highlighted that how buildings should be made, where trees should be planted, how cement should be used, sizes of beam and pillars are a few things which must be included in the course to empower the youth on DRR.

VII: Presentation by Dr Dharmaveer Singh, Assistant Professor, Symbiosis Institute of Geoinformatics, Symbiosis International University, Pune, Maharashtra.

Dr. Dharamaveer, stressed upon that curriculum should be under Ability Enhancement Courses (AEC) of university to make it compulsory for each student. Further he highlighted the scope of DRR at UG level – increase awareness at local scale; motivate to pursue career; development of skills and professional career.

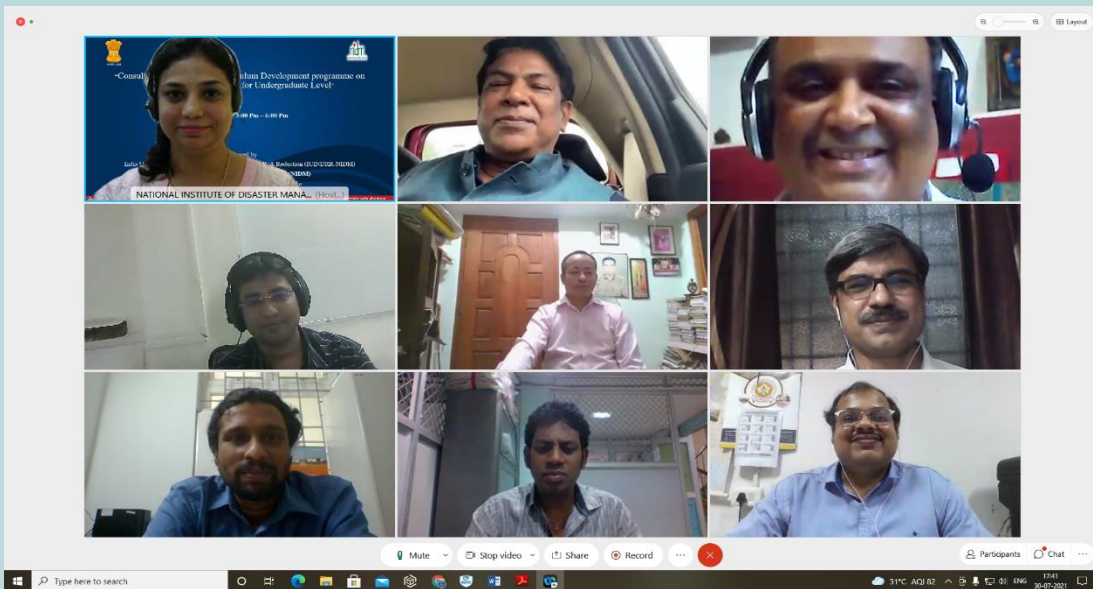


❖ Draft Structure of the Curriculum (Summary)

- 3-4 credit scores should be set for the course on disaster management
- It should be an ability enhancement course of university
- It should be introduced in 5th semester
- Basic and simple language
- Curriculum should be developed in simple/regional language
- Should be connected with different bodies of universities – NSS, YKS, Youth Red Cross
- It should be taken as a compulsory paper
- Include trauma and stress management studies
- Should talk about preparedness for future
- Students must be able to read early warning signs after the completion of the course
- Disaster mitigation techniques of construction should be included in the curriculum
- Region based disaster issues should be included by individual universities
- UG program is to build capacity of the students to save themselves and their families.

❖ Concluding Remarks and Vote of Thanks

At the end of the webinar, Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM concluded the workshop and briefed structure of curriculum. She explained criteria, areas and assessment criteria of the curriculum. While concluding the workshop, Professor Santosh Kumar, GIDRR Head, NIDM briefed about the way forward strategy for formulation of curriculum. He explained that Dr. Preeti Soni, SPC, NIDM will share the draft structure of curriculum on the suggestions and feedback of today's presentation and will seek consent from all the presented working group members. A Zero draft will be presented on second consultative workshop having senior academicians and other stakeholders across the country.



At last, Dr. Preeti Soni, SPC, IUINDRR-NIDM gave vote of thanks to Major General Manoj Kumar Bindal, Executive Director, NIDM, Professor Santosh Kumar, GIDRR Head, NIDM, Shri Shekhar Chaturvedi, Assistant Professor, NIDM for their support and guidance. She also extended her thanks to all working group member i.e., Dr. Subhasis Bhadra, Prof., Department of Social Work, Central University of Rajasthan, Dr. Pratheesh P, Assistant Professor, Central University of Kerala, Dr. Kiran Jalem Assistant Professor National Institute of Rural Development & Panchayati Raj, Shri Naveen Maheshkumar Agrawal, Registrar, DADA Ramch and Bakahru Sindhu Mahavidyalaya, Dr. Kosygin Leishangthem, Assistant Professor, Manipur Technical University, Dr Dharmaveer Singh Assistant Professor, Symbiosis Institute of Geoinformatics, Symbiosis International and Dr. Amit Sinha, Shri Ramswoop Memorial University, Barabanki, Uttar Pradesh who gave their valuable time and knowledge to make the programme successful. She also gave thanks to IT team of NIDM for technical support.

List of the participants/Working Group Members

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