Final Report

Deliverable 17

09 October 2014
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## ACRONYMS

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<tr>
<td>AAHRPP</td>
<td>Association for the Accreditation of Human Research Protection Programs</td>
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<tr>
<td>ABET</td>
<td>Accreditation Board for Engineering and Technology</td>
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<td>ADPC</td>
<td>Asian Disaster Preparedness Center</td>
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<td>AICTE</td>
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<td>AIDMI</td>
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<td>AIU</td>
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<td>ALTM</td>
<td>Airborne Laser Terrain Mapping</td>
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<td>ANSI</td>
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<td>APaC-CDR</td>
<td>Asia-Pacific Center for Coastal Disaster Research</td>
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<td>ATI</td>
<td>Administrative Training Institute</td>
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<td>BCI</td>
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<td>BPPT</td>
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<td>CAZRI</td>
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<td>CBRN</td>
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<td>CENDEP</td>
<td>Centre for Development and Emergency Practice</td>
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<td>GNDR</td>
<td>Global Network of Civil Society Organisations for Disaster Reduction</td>
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<td>Geological and Nuclear Sciences</td>
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<td>HFA</td>
<td>Hyogo Framework for Action</td>
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<td>ICDRM</td>
<td>Institute for Crisis, Disaster and Risk Management</td>
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<td>NCCARF</td>
<td>National Climate Change Adaptation Research Facility</td>
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<td>National Database for Emergency Management</td>
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<td>National Disaster Management Authority</td>
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<td>National Emergency Management Association</td>
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<td>NRSC</td>
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<td>NSDC</td>
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<td>OSU</td>
<td>Oregon State University Wave Center</td>
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<td>PCI</td>
<td>Pharmacy Council Of India</td>
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<td>PEER</td>
<td>Pacific Earthquake Engineering Research Center</td>
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<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>REMM</td>
<td>Radiation Emergency Medical Management</td>
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<td>RIMES</td>
<td>Regional Integrated Multi-Hazard Early Warning System for Africa and Asia</td>
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<td>Risk-RED</td>
<td>Risk Reduction Education for Disasters</td>
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<td>RMC</td>
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<td>Regional Specialised Meteorological Centre</td>
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<td>SAARC</td>
<td>South Asian Association of Regional Cooperation</td>
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<td>SASE</td>
<td>Snow and Avalanche Study Establishment</td>
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<td>SDMC</td>
<td>SAARC Disaster Management Centre</td>
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<td>Sea Defence Consultant</td>
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<td>SIRO</td>
<td>Scientific and Industrial Research Organisation</td>
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<td>Social and Preventive Medicine</td>
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<td>SMN</td>
<td>National Seismological Network</td>
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<td>SPQEM</td>
<td>Scheme for Providing Quality Education in Madrasas</td>
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<td>Tsunami and Disaster Mitigation Research Centre</td>
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<td>TISS</td>
<td>Tata Institute of Social Sciences</td>
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<td>UGC</td>
<td>University Grants Commission</td>
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<td>UN-ISDR</td>
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<td>USU</td>
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<td>WISER</td>
<td>Wireless Information Systems for Emergency Responders</td>
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EXECUTIVE SUMMARY

‘Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction’ was a project commissioned by NIDM under the World Bank assisted National Cyclone Risk Mitigation Project (NCRMP). It sought to assess the status of disaster management training at various levels and institutions in the country and to create a capacity building strategy.

This report presents the project overview, process, approach and methodology for carrying out the assignment, a brief of the main deliverables achieved during the project and the overview of the consultation meetings held in the project period.

A first of its kind and scale, the strategy constitutes a very significant step towards strengthening disaster management capacity in the country. It was a countrywide study with in-depth field research across six sample states of Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal.

The scope went beyond cyclone risk mitigation and covered disaster risks associated with five hazards - earthquakes, landslides, cyclone, floods and drought. It addressed all levels extending from national to urban and rural local bodies; cut across four priority sectors – education, health, rural development and ULBs/PRIs; and included the crucial role of the media.

Besides the creation of actual training material, outputs of the strategy laid down policy frameworks for training and education; set up a research agenda; suggested human resource plans; outlined a national public awareness campaign; laid down the roadmap for setting up centres of excellence; and created a white paper on the sector.

The strategy work undertaken was divided into four parts as follows:

A. Training Activities: This part of the strategy included analysis of training gaps and needs leading to the development of a strategic framework for implementation of training on disaster risk mitigation in India. It also entailed the development of a draft training strategy for the consideration of the government, along with a set of modules for training and training of trainers on the specific sectors of health, PRI/ULB, education and rural development.

B. Research and Education: Part B of the study focussed on the strengthening of disaster management-related education and research. It included a SWOT analysis of existing facilities. With a view to the lack of accreditation standards in this area, recommendations on training, certification, accreditation and quality management for short-term training programmes, research programmes and formal educational programmes at graduate and post graduate levels in the field of disaster management were made under this part of the study.

C. Public Awareness: Acknowledging the vital role of the media and of citizen awareness, Part C focussed on strengthening disaster reporting and more effectively communicating disaster-related information to the general public. A strategy for a national media campaign on disaster risk reduction was developed. Training of trainer modules were developed both for Senior Journalists, PIOs and PROs; and for entry-level journalists. A handbook and guidelines on the principles of disaster reporting also developed under this theme can serve as handy guides for relevant stakeholders.

D. Organisational and Institutional Development: Part D of the study addressed issues related to the identification of legal and institutional gaps as well as overlaps due to the enactment of state and national acts and policies. This part analysed policy and former disaster management frameworks at national level, and synergy and adequacy of legal, institutional and organisational arrangement in place. This was then used to identify needs
and develop guidelines for setting up centres of excellence for disaster management in India. A white paper on capacity building and training in DRR for India was also made under this part.

**Study Methodology**

The overall approach of the study included participatory research, action learning and collaborative strategy development. This covered primary and secondary data analysis; widespread stakeholder consultation; participatory needs assessment involving communities and other stakeholders; and the development of innovative tools and techniques to address the identified needs. Around 18,000 people were interviewed across the six states of Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. In each state, six villages, two each in three representative districts, and one urban area were taken up for the survey. Close to 7,600 people were reached out to through focus group discussions, transect walks and in-depth interviews. The rest were covered through household surveys. Secondary source information was obtained by study of reports, notifications and desktop research.

**Key Findings**

The key findings of the project are as follows:

- Over eight million people including government and non-government functionaries at various levels need to be trained in the first phase in order to meet the basic minimum required capacity to address disaster management issues in the country.
- A national policy on training and capacity building for DRR in India should be the basis for the implementation; with a cascading effect to ensure that it reaches people at the grassroot levels.
- A total of 52 thematic areas need to be covered with 12 of them identified as priority areas for training.
- No system for accreditation of disaster management-related short term courses, education or research is currently available in India. Options for instituting such accreditation systems have been developed, anchored at a central nodal institution. The deployment options are being discussed to strengthen systems at national, state and district level.
- The media plays a vital role in all phases of the disaster cycle. The training of journalists, PIOs and PROs can have a profound impact on disaster reporting. Coupled with the rollout of a national public awareness campaign on disaster risk reduction, it can help build a culture of safety.
- Centres of excellence should be developed at national and sub-national levels (both from existing and new institutions) to anchor cutting-edge research and serve as the anchors for hazard, regional or geo-climactic specific needs.
- Institutional and organisational set up needs to be revamped and made more focused from national to local level.
PROJECT OVERVIEW

1. The Indian DM context

India has been traditionally vulnerable to natural hazards on account of its unique geoclimatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena. Climate change is expected to further increase the disaster risk across the world. India, with its heavy dependence on the monsoons, is one of the countries on the frontline of the climate and disaster challenge. A large part of the landmass is prone to earthquakes of various intensities, floods, cyclones and drought. The loss in terms of private, community and public assets has been astronomical. Over the past few years, with an aim to address mounting losses due to disasters, the Government of India has brought about a paradigm shift in its approach to disaster management. The High Powered Committee (HPC) Report, the National Disaster Management Act and the National Policy on Disaster Management are some landmark initiatives that have driven this approach; and the agenda has been integrated into practicable instruments including the National Five Year Plans and the Finance Commission Reports. The new approach proceeds from the conviction that development cannot be sustainable unless disaster mitigation is built into the development process. Another cornerstone of the approach is that mitigation has to be multi-disciplinary, spanning across all sectors of development. The new policy also emanates from the belief that investments in mitigation are much more cost effective than expenditure on relief and rehabilitation. A number of guidelines on the subject of disaster management have been issued by the National Disaster Management Authority with this perspective which are guiding the disaster mitigation and preparedness work in the country. The development of the National Disaster Response Force (10 Battalions have already been commissioned and 11th and 12th Battalions are underway) has not only boosted prompt and efficient response; but has also given a fillip to awareness generation. Training has been imparted to different stakeholders including development of Master Trainers and the conduct of mock drills.

Progress has also been aligned with the international perspective and the evolution of disaster risk reduction (DRR) frameworks and initiatives with special reference to International Decade for Natural Disaster Reduction (IDNDR), International Strategy for Disaster Reduction (ISDR), Yokohama Strategy and the Hyogo Framework for Action (HFA). Critical inter-linkages across DRR and Climate Change Adaptation (CCA) concerns and issues are other emerging concerns that are being addressed at various levels.

The DRR measures taken include efforts to mainstream DRR into development planning through policy frameworks, as well as specific sectoral initiatives towards DRR with key flagship programmes such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Sarva Shiksha Abhiyan (SSA), National Rural Health Mission (NRHM), Indira Awaas Yojana (IAY) etc.

As part of this larger initiative, the Government of India has taken up a National Cyclone Risk Mitigation Project (NCRMP) with World Bank assistance.

2. Objectives of the National Cyclone Risk Mitigation Project

The National Cyclone Risk Mitigation Project (NCRMP) seeks to undertake suitable structural and non-structural measures to mitigate cyclone risks across the country. The project development objective of NCRMP is to reduce the vulnerability of coastal communities to cyclones and other hydro-meteorological hazards through:

1 UNDP, ‘Disaster Risk Reduction In India’
Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction under NCRMP: Final Report

1. Improved early warning dissemination systems
2. Enhanced capacity of local communities to respond to disasters
3. Improved access to emergency shelter, evacuation, and protection against wind storms, flooding and storm surge in high risk areas
4. Strengthened DRM capacity at central, state and local levels in order to enable mainstreaming of risk mitigation measures into the overall development agenda.

Based on the above objectives, the project has been divided into four components: A) Early Warning Systems, B) Cyclone Risk Mitigation Infrastructure, C) Technical Assistance for Capacity Building on Disaster Risk Management and D) Project Management and Monitoring.

Component ‘C’ has been planned to meet the objective of S.No. (4) with the National Institute for Disaster Management (NIDM) as the implementing agency. The objective of component ‘C’ is to undertake damage assessment studies and assess institutional capacities of various stakeholders involved. This study was carried out as a part of Component C and aimed at preparing a long-term training and capacity building strategy for disaster risk mitigation in India. The objective of the study was to assess the capacity gaps of stakeholders in all the phases of the disaster management cycle; to develop short and long-term capacity development strategies; and to conduct training need analysis and develop training designs and modules for all relevant stakeholders.

In the context of an overarching Capacity Development Framework, this had a focus on quality; the accreditation process; research and education initiatives; strengthening of organisations and institutions; and further strategising of public awareness initiatives.

Key capacity building institutions were mapped in six highly vulnerable states of the country and their strengths and gaps were analysed. The institutions included those which impart sectoral trainings such as health and education; and those which address the training needs of disaster management professionals in the states. The analysis also assessed the training needs of various stakeholders; ranging from government officials concerned with urban and rural development across national, state, district and local levels to civil society workers and community members.

Based on the learning from the six sample states, training and awareness modules were developed for piloting in the different states. The modules focussed on the capacity development of the State Governments, institutions and their functionaries to effectively reduce and manage the risks of disasters in the states and UTs.

Deliverables on capacity gaps were prepared in relation to all the phases of the DM cycle i.e. response, relief, recovery/reconstruction, prevention, preparedness & mitigation; and adopted a multi-hazard, multi-stakeholder and multi-level approach. The components of this study also covered awareness generation programmes, sensitisation of decision makers and a strategy for quality assurance.
3. Study Components

The four parts of the study include:

A. Training Activities
B. Research and Education
C. Public Awareness
D. Organisational and Institutional Development

The activities carried out under each of the parts are as follows:

A. Training Activities

The analysis of training gaps and needs led to the development of a strategic framework for implementation of training on disaster risk reduction in India. A draft training strategy for consideration of the government was developed, along with a set of modules for training and training of trainers.

All the proposed analyses and development of various products were based on a SWOT analysis drawing on both secondary and primary data. Primary data was collected from the six study states of: Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal.

Training gaps and needs were identified and addressed for the entire country across four key sectors (education/health/rural development/ULBs and PRIs) in view of five major hazards (earthquakes, landslides, floods, droughts and cyclones) across different levels (policy, management, operational). The study also brought in an informed understanding of the techno-legal processes that enable/facilitate the training process. Aspects such as manpower, infrastructure, curriculum and capacity of training institutions were addressed. The needs were analysed with a multi-hazard, multi-sector, multi-level and multi-stakeholder perspective.

The study helped develop strategic framework for human resource plans for disaster management at the state level in India. It is important to underline here that the development of a national level human resource (HR) plan has been in the making for more than a decade now. This study added value to the ongoing process by identifying the evolving human resource requirements for disaster management in the country. The plan inputs focused on the need to create and strengthen existing capacities across levels by building greater awareness of disaster risks; and creating functional competencies to create and implement risk management strategies on the ground.

The study culminated in a ‘white paper on training and capacity building for disaster risk reduction in India’, structured as a draft policy document for the consideration and use of the Government of India at the national level.

B. Research and Education

Part B of the strategy focused on accreditation process, quality management and SWOT analysis of disaster management research and education in India. The three-stage process looked at accreditation and certification of disaster management trainings; accreditation and quality aspects of disaster management research and education; and accreditation of graduate and post-graduate courses in disaster management.

The study was based on a range of research activities including national and international literature review and interviews with key informants at the national level, as well as in the six states covered by the study namely Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. It also included case studies drawn from national and international best practices.
The analysis identified the impact of current research and education interventions in DM on the capacity development process of concerned professionals; and identified specific areas to strengthen within the system.

The approach taken was cognizant of the fact that virtually no accreditation system for disaster management research and education currently exists in the country and that any proposed system would need to be built from scratch. This included recommendations on the use of certification and accreditation tools to incentivise training and capacity building. A series of consultations were carried out to come out with recommendations for short-term training programmes, research programmes and formal educational programmes at graduate and post graduate levels.

C. Public Awareness

Under Part C, various approaches to improve public awareness on issues related to disaster risk and disaster management were developed.

India's teeming population can be covered through effective disaster risk reduction programmes only with the help of a significant, well organised and sustained public awareness effort. A comprehensive public awareness strategy was developed that included widespread field and desktop analysis of the current gaps and lessons from successful campaigns. The entire strategy was approached from a behavioural change perspective. It was designed for use by a variety of stakeholders. At the National and State level, it is an overall guide to planning disaster risk reduction awareness campaigns. At the district level and below where it will actually be implemented, the strategy provides details on the type of messaging and appropriate mediums.

Media sensitisation also played a key role. Journalists play a critical role in informing the public during disaster preparedness, response and recovery. However, it is only usually the dramatic aspects which find the spotlight. There is little, if any, coverage, of risk reduction aspects during non-disaster times or truly appropriate reporting in a disaster aftermath.

Both the toolkit on disaster reporting (handbook and guidelines) and the two TOT modules (entry-level and senior) were centred around principles of disaster reporting. Keeping in mind the findings from the ground studies and the need for quick recall, these have been termed the ‘A-F and S of disaster reporting.’ This includes understanding disasters, accuracy, balance, consistency and collaboration, dignity, environment and development (going beyond the disaster), follow-up and safety.

D. Organisational and Institutional Development

Part D covered legal, institutional and organisational development. The institutional and organisational setup is primarily based on the legal framework in place in terms of the Disaster Management Act, 2005. The Act also provides legislative back-up to institutional and organizational systems in place in India. This is the foundation on which the super-structure of training and capacity building, research and education and public awareness are built. Therefore, Part D addressed issues related to the identification of legal and institutional gaps; as well as overlaps due to the enactment of a few State DM Acts and the National Disaster Management Act, 2005.

This component also analysed policy and DM frameworks put in place at the national level in 2009 and 2002 respectively. The four key pillars of the foundation are the HPC Report on Disaster Management, National Disaster Management Framework, National Disaster Management Act, 2005 and the National Policy on Disaster Management. The synergy and adequacy of legal, institutional, and organisational arrangements in place were analysed. Under the institutional arrangements, the present status, experiences, strengths and
weaknesses which need to be eliminated were assessed for NDMA, SDMAs, DDMAs, NEC and SECs.

The mapping of key capacity building institutions (as carried out under Part A of this study) was taken as the basis for this analysis. In particular, the exercise assessed the functioning of NIDM. NIDM is the apex national level institute for disaster management in the country. Therefore, a comprehensive review of NIDM was necessary since it has a direct impact on training and capacity development for India; besides extending policy and professional support to NDMA, central and state governments, state training institutes and all other stakeholders.

NIDM’s ability to effectively discharge the statutory functions assigned to it under the DM Act; whether it enjoys adequate autonomy; has adequate and well trained faculty and infrastructure; its constraints, if any; and remedial measures required were analysed. This was done from the perspective of enabling it to function as a regional institute of excellence for SAARC countries, keeping in mind that the SAARC Disaster Management Centre is also housed in NIDM and both have common goals so far as DRR and CCA are concerned.

The above analysis of NIDM and other institutions was used to identify needs. With additional research into national and international best practices, guidelines were then developed for setting up Centres of Excellence in India.

4. Approach and Methodology

The perspective for undertaking a capacity assessment and strategy development exercise of this nature and scale covered inclusive, equitable, safe and sustainable development. Moreover, it was sensitive to climate change impacts and uncertainties. Marginalised communities invariably face the greatest disaster vulnerability, due to their physical, economic, social and political disadvantages. The capacity building strategy had a special focus on enhancing their resilience to disasters - including climate-related ones. Disaster managers and frontline functionaries across sectors including rural development, health, education and PRIs/local bodies were studied and analysed with a view to making recommendations for their targeted training. Organisational Development initiatives and other institutional capacity building measures also formed important components of the capacity building strategy.

The broad approach included participatory research, action learning and collaborative strategy development. This entailed widespread stakeholder consultation; participatory needs assessments involving communities and other stakeholders; and the development of innovative tools and techniques to address the identified needs.

The strategy aimed to help accomplish the following:

- Identify the capacity gaps across the critical sectors to respond to various functions laid down in the DM cycle i.e. response, relief, recovery, reconstruction, mitigation and prevention.
- Improve the quality of available human resources by upgrading their knowledge, skills and competencies through appropriate training and technical assistance interventions.
- Strengthen organisations and institutions by helping them re-define their functional goals and streamline processes and procedures.
- Mainstream disaster risk reduction in the national development programmes for the rural and urban poor.
Throughout the project a number of deliverables have been developed.

1. Format of inception report
2. Draft inception report and presentation along with pert-chart and detailed delivery schedule
3. Final inception report
4. Preliminary report on survey analysis of the first three states
5. SWOT analysis report
6. Strategic framework for implementation of training
9. First set of training and ToT modules
   1. ToT Module on Strengthening PRIs for Mainstreaming DRR & CCA in Development: Focus on National Development Programmes
   2. TOT Module on Integration of Disaster Risk (DR) and Climate Change (CC) Resilience in Rural Development Policies and Programmes
10. Accreditation process and quality management and SWOT analysis of status of DM related education and research
11. Suggestions for accreditation process and its policy for DM technical courses at graduate and post graduate level
12. Second set of training and ToT modules
   1. ToT Module for Teachers on Creation of Culture of Safety through Knowledge and Education
   2. ToT Module for Preparation and Implementation of Hospital Disaster Management Plan: Focus on Emergency Health Services
   3. ToT Module for Mainstreaming Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) into City Development Plans (CDPs)
13. National consultative workshop on accreditation process and policy and training approach and modules
14. All expected outcomes of public awareness as indicated in the scope of the study (SWOT analysis, report, strategy for media campaign, module, handbook & guidelines for journalists)
   1. Strategy for National Media Campaign
   2. ToT Module for Examining Principles of Disaster Reporting: A Training Course for Entry Level Journalists
   3. ToT Module for Re-Examining Principles of Disaster Reporting: A Training Course for Senior Journalists, PIOs and PROs
   4. Principles of Disaster Reporting: Guidelines
15. White Paper for capacity building and training in DRR for India
16. The outcomes of organisation / Institutional development part in the scope of study
   1. Review of institutions, strategy for standardisation & mechanism for setting up of DRR institute along with its capacity building strategy
   2. Guidelines for setting up Centres of Excellence for Disaster Risk Reduction
   3. Template for A Model State Human Resource and Capacity Development (developed as part of Deliverable 6)
17. Final report
5. Study Framework

The capacity building approach took into account various global recommendations and guiding principles commensurate with international practices, particularly the Hyogo Framework for Action (HFA). The strategic goals and action priorities of HFA informed both the needs assessment and strategy development components of the tasks as given below:

- Integration of disaster risk management into sustainable development policies and planning
- Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards
- Systematic incorporation of a risk reduction approach in implementation of emergency preparedness, response and recovery programmes

**Focus by hazard and sector**

The study focussed on five hazard types:

1. Earthquakes
2. Floods
3. Droughts
4. Cyclones
5. Landslides

The study focussed on the following prioritised sectors of intervention:

1. Health
2. Rural Development
3. Education
4. PRI/ Local Bodies (these would need to be dealt with separately given the very significant variation in their context based needs, and the different legislative and institutional provisions at play leading to the need for different specific responsibilities for respective target groups)

The HFA framework acknowledges the cross-cutting nature of the risk management agenda. It calls for a multi-hazard approach based on gender-sensitive capacity building and the needs of communities at risk. The women empowerment and gender equity dimension were specifically addressed under this study.

Further, at a macro level, the study covered four key institutions, which form the larger context of people’s lives and livelihoods and run the risk of being adversely affected by disasters. These are state, community, market and media. These institutions were critical to constructing risk or safety conditions. People live in communities; the state and its operational arm - the government - initiates policies and programmes to make their lives safer and better; the market uses/ creates goods and services; and the media plays a critical role in raising public awareness.

All these institutions inter-lock in many mutually determining ways. In order to deal with disaster risks effectively, the capacities of all these institutions would need to be built based on their respective strengths. Community and state capacity to mitigate and manage disasters is crucial. Media’s capacity to create public awareness and disseminate information quickly and effectively to minimise damage and loss are vital. Finally, the market has an overall responsibility due to their large-scale access to resources and the huge economic losses that can be caused when market activity is disrupted; such as the case of the unprecedented Mumbai floods of 2005.

Though the market was not the focus of this study, it was considered in the context of its role in building the capacities of the state, community and media. Its role in resource mobilisation and as participants in public-private partnerships could be significant in advancing the DRR agenda.

This framework for the study intended to address training and capacity building needs from a holistic perspective by seeking to locate and mainstream risk management concerns and efforts into the national development agenda.

The necessary studies were carried out by various primary and secondary techniques. The primary data collection process was carried out across 36 GPs and 6 ULBs across 24 districts in 6 states of India. This was done using household surveys, focus group discussions and key informant interviews as the primary research instruments. Questionnaire surveys were used for collection of information from institutional stakeholders in the various capacity building institutions across the six states; and at the community level through household surveys. Focus group discussions were used to obtain information from communities. The formative research in the field also entailed in-depth interviews with key stakeholders from within government and non-government agencies at the state and district levels. The Questionnaire based survey of eminent experts working in DRR in India and abroad both in Government and Non-Government were carried out. This also included the development and dissemination of key informant questionnaires through prominent disaster management forums.

Secondary source information was obtained through the study of reports, notifications and desktop research.
6. Study Area

Under the study, sample surveys were carried out covering the six states of Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. The states were identified by NIDM on the basis of their multi-hazard context, representative vulnerabilities and ongoing capacity building initiatives that can feed the study. Brief profiles of these states are as follows:

**Selection of sample states and districts covered during the study**

![Map of States Covered in the Study](Image)

**Andhra Pradesh**

Andhra Pradesh is exposed to cyclones, storm surges, floods and droughts. A moderate to severe intensity cyclone can be expected to make landfall every two to three years. About 44% of the state is vulnerable to tropical storms and related hazards. Extensive efforts on disaster management were initiated after a devastating cyclone in 1977 and it is one of the pioneer states in disaster management planning.

**Bihar**

Due to its geographical and topographical location, Bihar is prone to floods, droughts, fire and earthquakes. According to seismic zoning, some parts of the state are in Zone-IV & Zone-V, which can cause extensive devastation as faced in the Bihar-Nepal earthquake of 1934. Recent major disasters include the Kosi Floods of 2008. Bihar has been taking active steps to improve disaster management planning and has established significant institutional systems and legislative measures in this regard in recent years.

**Odisha**

Odisha is vulnerable to multiple hazards including tropical cyclones, storm surges, droughts and tsunamis. The heavily silted rivers in these areas have very little carrying capacity, resulting in frequent floods that are compounded by breached embankments. The state falls in Earthquake Risk Zone-II and III. After the Orissa Super Cyclone of 1999, the state has taken significant steps to establish institutions and put in place policies and legal instruments to aid disaster management efforts.
Gujarat

Gujarat is vulnerable to a variety of natural hazards with earthquake, tropical cyclones, floods and droughts being prominent ones. After the Bhuj earthquake of 2001, major steps were taken to improve disaster management capacity through the State Disaster Management Authority and its model initiatives of preparation and implementation of DM plans. The establishment of Gujarat Institute of Disaster Management was a major step in the direction of building long-term capacity.

Uttarakhand

Uttarakhand by virtue of its geographical setting in the fragile Himalayan ecosystem is highly vulnerable to natural hazards and climate change impacts. The state has suffered a number of major earthquakes, landslides, cloudbursts, flash floods, forest fires and is also reeling under climate change related stresses. Uttarakhand is one of the pioneering states in institutionalising disaster management in governance through a ministerial level focus on the subject.

West Bengal

Different parts of West Bengal are vulnerable to varied natural hazards such as floods, tropical cyclones, earthquakes, landslides, drought and embankment erosion. The diversity in the geo-climatic setting of the state, ranging from the Himalayan highlands in the north to the Sundarban delta region in the south creates a varied context of risk. The state has been actively pursuing the establishment of improved DM systems.

Selection of Districts and ULBs

The selection of the districts and GPs in each district were made in consultation with NIDM and the concerned states.

The criteria for selection included:

1. Districts that are prone to multiple hazards prone (as per BMTPC, Vulnerability Atlas of India, 2nd edition), with preference given to districts with three or more applicable hazards
2. District that have faced a significant disaster in the past (history referred)
3. Preference given to Districts covered under UEVRP project
4. Highly vulnerable districts of the state in terms of BPL and socially disadvantaged populations
SUMMARY OF PROJECT DELIVERABLES

DELIVERABLE 1 - 3: Inception Report
(Form of Inception Report, Draft Inception Report and Final Inception Report)

This report marked the inception of the study titled ‘Preparing Long Term Training and Capacity Building Strategy for Cyclone Risk Mitigation’. The study was commissioned by NIDM under the World Bank assisted National Cyclone Risk Mitigation Project (NCRMP). It was a countrywide study with in-depth field research across six sample states of Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal.

A first of its kind and scale, the study offered a very significant opportunity to contribute towards strengthening disaster management capacity in the country. It addressed all levels extending from national to urban and rural local bodies; cut across four priority sectors, including the crucial role of the media; and also laid down the roadmap for setting up centres of excellence. Besides the creation of training material, it laid down policy frameworks for training and education, set up a research agenda, suggested HR plans, outlined a strategy for a national public awareness campaign and created a white paper on the sector. It packed the wide range of activities in a fourteen month period, preparing a number of sub-deliverables in the form of reports, modules and consultation events.

This inception report presented the plan, process, approach and methodology for carrying out the assignment. In view of the fact that the scope of study goes beyond cyclone risk mitigation and covers disaster risks associated with five hazards (earthquake, landslides, cyclone, floods and drought) across four key sectors (education, health, rural development, ULBs/PRIs), the study was re-titled ‘Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction in India’ in view of its wider relevance to the real scope of the study. The study proceeded with a number of activities running in parallel to achieve the ambitious goals of all the components as outlined in this report.
DELIVERABLE 4: Preliminary report on survey analysis for the first three states

Under the study, sample surveys were carried out covering the six states of Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. The states have been identified by NIDM on the basis of their multi-hazard context, representative vulnerabilities and ongoing capacity building initiatives. Based on the study of the three states of Bihar, Odisha and West Bengal, the preliminary findings were derived. However, these findings were finalised only after inputs from the quantitative and qualitative data analysis of the three remaining states, namely, Gujarat, Uttarakhand and Andhra Pradesh, were integrated. The outcomes were finally part of the SWOT analysis.

DELIVERABLE 5: SWOT analysis including current status, identified gaps in capacity, types of training, training need and training infrastructure

The Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis had been carried out as the base study for the project on Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction in India under the National Cyclone Risk Mitigation Project (NCRMP). Extensive qualitative and quantitative surveys were carried out in the six selected sample states of Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal to gather data based on questionnaires designed for representative information gathering. A total of 18,000 persons and 200 Key Informants were covered in the study, besides extensive literature review and consultations with experts at NIDM. Key findings were presented in this report and were used extensively as the foundation for analysis in the subsequent stages of the study.

SWOT Analysis

The study resulted in a very in-depth view of the strengths, weaknesses, opportunities and threats in the sector, which were presented in detail in the report. At a broad level, the following findings emerged:

Strengths:
- Strong legal framework and policy regime cutting across sectors
- Extensive institutional infrastructure already in place
- Rich experience, good practices and related learning
- Availability of resources under different programmes

Weaknesses:
- Lack of common multi-sectoral vision for disaster management and related frameworks, perspectives, plans and benchmarks
- Disconnect between policy and practice
- Primary focus on disaster response and relief and lack of attention on risk reduction
- Gaps in policy, design and delivery of training and capacity building programmes

Opportunities:
- Various national flagship programmes provide a ready platform
- Growing capacity building institutions and related infrastructure are readily available
- Strong network of civil society organisations is already working on the subject in vulnerable parts of the country
- Community organisations are emerging in a fast growing movement and can form the base of national capacity building efforts

Threats:
Investment in long term benefits of disaster risk reduction is overshadowed by opportunity costs of short term projects with immediate gains

Ongoing trends of unsafe development are creating risk at a pace faster than risk reduction efforts

The SWOT Analysis was carried out in further detail along the primary areas of the study and some cross cutting issues:

A. Training and capacity building
B. Research and education
C. Public awareness and media
D. Organisation/institutional development
E. Mainstreaming disaster risk reduction
F. Cross-cutting issues

Context and Capacity Analysis

Situational analysis, investment analysis, capacity needs assessment and communications needs assessment comprised the study of context and capacity. The extent of vulnerability to natural hazards was a primary determinant, but issues of small and localised disasters also emerged as a significant concern in the field study. The impacts of climate variability were clearly visible in all the states; and they pose a serious challenge for risk reduction systems that are based on addressing predictable risks. It was found that the availability of financial resources has increased substantially both at national and state levels, but brings with it challenges of managing resources at a large scale and in a multi-hazard, multi-sectoral and multi-level manner. Capacity constraints were found to be severe at all levels, including the capacity to build capacity.

Specific concerns at the local level arose from the following key factors: high proportion of families below poverty line; prevalence of structurally vulnerable housing; lack of disaster mitigation and preparedness measures; and the large scale needs of disaster response and recovery where disasters are recurrent and of large magnitude. Climate change is bringing with it a new set of shocks and stresses, which are still not clearly understood, resulting in an urgent need to study and design systems for climate change adaptation. Compound disasters, a combination of a number of linked events, is another emerging risk that is following the pathways of rapid and large scale development. While studying the potential solutions for risk reduction, indigenous knowledge emerged as a very significant local resource. With the appropriate support of technological developments, it can provide
affordable and sustainable answers.

The national financial system for disaster management comprises of the national Disaster Response Fund (NDRF), the State Disaster Response Fund (SDRF), and various programmes and schemes that make available resources to states as per their need. For the purpose of disaster risk reduction, funding can also be tapped from various developmental programmes that are closely aligned to the subject, since risk reduction is more developmental in nature as opposed to disaster response. The private sector has also emerged as a significant resource. The value of community action and the role of the informal sector are recognised as valuable elements of a holistic disaster risk reduction approach.

The stakeholder analysis followed the Authority, Responsibility, Accountability and Capacity (ARAC) framework. It reviewed the role of government, non-government, academic, corporate, media, and community role-players in detail. The resultant framework of institutions formed the basis for a capacity needs assessment. The key dimensions of capacity were taken as organisational structure, culture and competencies; human resources; financial resources; information management, infrastructure and community coping mechanisms. While existing systems for capacity building were found in place across all the dimensions, significant gaps were identified across all dimensions in view of the large scale and variable nature of disaster risks the country faces. Capacity gaps and needs were found at the policy level across various organisations studied, at the district and sub-district level in the administrative systems, and also at the local governance and community level. Similarly, communication needs assessment reviewed the tools and media presence, nature and outreach. It found that despite variable penetration levels there is very significant potential of the media to address the community level, helping build capacity from the bottom up and facilitate the implementation of capacity building programmes by preparing the community appropriately. Messaging, deployment of appropriate media and two-way communication are some key areas where strategic interventions are required.

Analysing Institutional Capacities

India has a well established institutional system for training and capacity building, which has been developed over years and across many developmental and academic sectors. A careful review of the national, state, district and local levels showed the need to create cross-sectoral linkages and to strengthen capacity of the institutions at all levels; but particularly at the sub-national levels.

Analysing the Techno Legal Framework

A very significant part of disaster risk arises from unsafe buildings and infrastructure. Traditional construction systems have given way to modern materials, but technology and skills have not percolated down to the construction implementers at a level that adequately includes safety features. Lack of regulations in rural contexts, and lack of enforcement in rapidly growing urban settlements are building in risk within the developmental process. Vulnerability assessments, regulations and codes, capacity building initiatives addressing all levels from engineers down to construction workers, and programmes to support safe construction and retrofitting are clearly required in all areas and in known hazard prone areas on an urgent basis.

Identification of Training Gaps and Needs of Different Sectors

Training gaps and needs have been studied along the training cycle of needs identification, design, delivery, application of learning and evaluation. Training needs have been identified for institutions based on the emerging gaps and address key institutions including the Ministry of Home Affairs, the National Disaster Management Authority, National Institute of Disaster Management, State Governments, State Disaster Management Authorities and Key line departments at the state level as a priority. At the district and sub-district level, specific
gaps were identified and needs established for the District Magistrates, District Development Officers and Block Development Officers. Training needs of local governments and the community were defined with a specific focus also on local elected representatives, women, children and volunteers/voluntary organisations.

In addition, sectoral training needs were identified at national and state (policy), state and district (management), and district and sub-district (operational) levels for the key focus sectors of this study, which are health, education, rural development and local governance.

While addressing training needs, accreditation and quality management of training and certification needs to be ensured. Currently this is almost non-existent and institutions are awarding their own certificates without any accreditation mechanisms. In most cases these are certificates of participation, with little or no assessment of quality of performance. Institutional arrangements, processes and tools needed to be developed to establish a system for quality management of short term disaster management trainings.

Quantification and Prioritisation of Training Needs

Considering the 1.2 billion population, living across 127 different agro-climatic zones with 60% in areas vulnerable to significant disasters, the scale of training and capacity building required is accordingly large. It was projected that 81,62,000 (about 8.16 million) persons needed to be trained under the key sectors of the study in the first phase.

It was recognised that a base exists through the various training programmes already in place and specific interventions such as the GOI-UNDP Disaster Risk Management (DRM) Programme (2002-09) that trained close to 3.5 million people in 176 districts across 17 states. While much of the traction is lost when one-off programmes are ceased after some time, the remaining impact is of use while strategising a national approach.

The scale of trainings to be carried out is very large considering the current capacity of training institutions as analysed in this study. A process of prioritisation has thus been carried out and the training needs articulated in the form of 12 major training themes to be taken up as a matter of priority. These are:

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Present Status of DM Related Education and Research
The analysis of research and education gives clear indications of gaps that need to be addressed. In the area of research, there has been significant development in recent years with a number of institutions addressing the sector, but the approach remains fragmented and ad-hoc. Initiatives by NIDM and other institutions on documentation of disaster events and practices needs to be strengthened and scaled up. Applied research has to be planned and carried out through the national network of institutions that exists and is set to be strengthened. Quality management of research happens in educational institutions through the institutional accreditation arrangements, and in cases such as doctoral research through programme design. The approach needs to be formalised, sectoral quality management measures included and the network approach strengthened.

Education in disaster management is still an emerging sector in India. At the school level disaster management has been introduced in the middle school curriculum, and at the level of higher education close to twenty institutions are offering degree and diploma courses in disaster management. In addition, a number of institutions and organisations also offer technical courses leading to certification in aspects of disaster management. Some sector based disaster management courses are also part of core curriculum of sectoral education such as architecture, engineering and medicine.

The need for a national system for accreditation and quality management was clearly felt. The model for scope and range of accreditation looked at the two primary dimensions of scope and range as follows:

- **Scope** of the structure and programming, including accreditation of institutes/organisations; faculty/trainers (including accreditation of trainers/resource-persons and master trainers), programmes/courses, process, and the individuals being trained.
- **Range** of accreditation, including awareness/sensitisation, short term trainings, role-based/sector-based courses, education certificates, diplomas, degree courses, and quality management of research.

**Public Awareness and Media**

India’s teeming population can be covered through effective disaster risk reduction programmes only with the help of a significant, well organised, and sustained public awareness effort. The role of the community as a first responder, and the media as the communication channel to influence community behavior, emerged very strongly from the study, and had to form the fundamental basis of a national public awareness and media strategy. The need for investment in the specific issues of knowledge, attitudes, public references and operational environment emerged as an area requiring attention while developing a national public awareness strategy. Community groups that have survived on traditional knowledge are now faced with erosion in such knowledge systems and the invasion of technological practices that are locally not understood and cannot be managed in entirety. Changing contexts and new threats such as climate variability are also leading to disruptions in existing local coping systems, and new knowledge is yet to emerge on these subjects locally. Public awareness efforts will need to focus on priority stakeholders at the local level, primarily including special vulnerable groups, and will need to deploy specifically designed and customised messages and media.

The role of the media itself also emerges as a critical element of a disaster risk reduction approach, and it was found that media personnel are not adequately trained and skilled to report about disasters and disaster risks in ways that are sensitive to the subject and technically sound in understanding and portraying disaster terminologies, magnitudes and management processes. Capacity building of journalists will thus have to address these needs accordingly.
**Application of this Study**

The findings of the SWOT analysis were comprehensive and spread across types of hazards, levels of governance, sectors of development, phases of the disaster cycle and range of stakeholders, in alignment with the expected outputs of the training and capacity building project. They were used in the subsequent stages of the project to develop appropriately targeted policy and strategy documents, guidelines, plans and training modules.

**DELIVERABLE 6: Strategic Framework for implementation of training**

The strategic framework for implementation of training (SFIT) seeks to build on and complement Human Resource and Capacity Development Plan for Disaster Management and Risk Reduction in India, Government of India, prepared by National Institute of Disaster Management (NIDM) in 2013. SFIT aimed at adding value to the plan already prepared by providing a framework that can be of help in making it work in action.

The framework presented a broad and generic outline of what needs to be done and how in order to streamline training functions to create capacity for effective disaster management (DM) and disaster risk reduction (DRR) in India. This was done using a multi-hazard, multi-sector and multi-level approach. As originally envisaged, this framework for implementation of training (SFIT) was to flow from a national policy on training and capacity building for DRR in India. Hence, a design brief of the proposed policy was presented to begin with to help contextualise the strategic framework.

In its design and intent, SFIT is more of a policy cum strategy paper that draws the broader capacity development vision and agenda before locating the training functions and their implementation strategy within that. As a result, besides training, SFIT also underlines the crucial role of non-training factors such as infrastructure, policy, strategy, planning, work culture and enabling environment in creating the overall capacity of a system to function and produce desired results, but does not deal with them in this document.

As multiple hazards, sectors and levels are proposed to be addressed through this framework, it dealt with the training function mainly at the national level with the suggestion that similar strategies can be adopted at the state and different departmental levels at the centre following due deliberations at these levels. This was done with the objective of keeping the SFIT sharp and usable by a wide variety of actors by allowing them the flexibility to adapt the framework to varying contexts and demands of different states and sectors. This framework, therefore, does not address specific training needs and functions across different sectors and levels, which were being carried out separately as a part of developing sector and level specific training of trainer (TOT) modules.
Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction under NCRMP: Final Report

Figure: Strategic Framework for Implementation of Training (SFIT)

It is envisaged that this strategic framework for implementation of training will be of use as a ready reference not only for trainers and training planners and managers, but also for policy makers and programme managers at the centre and state levels.

Part A – HR Plan and Template

This report on “A Model State Human Resource and Capacity Development Plan and State Human Resource and Capacity Development Plan Template” was produced as part of the study for preparing long term training and capacity building strategy for disaster risk reduction in India under NCRMP. The Human Resource and Capacity Development Plan take into consideration all variables to facilitate development of adequate capacity within the state, keeping in view the institutional mechanism in place. This report will facilitate states in mapping of needed capacity for different specific functions in all phases of disaster management.

The report has been divided into 12 sections portraying different aspects that need to be included in the plan. The first section looks into detailed information about the legal mandates at national and state level, if put in place for formulating and implementing a comprehensive human resource development plan covering all aspects of disaster management. The Plan has to be prepared under the provisions made in the legal mandates like State Disaster Management Act, National Disaster Management Act, etc.

The second section describes the provisions in the draft Human Resource and Capacity Development Plan for Disaster Management and Risk Reduction in India formulated by National Institute of Disaster Management.

The third section presents the vulnerability profile of the state. This section describes the regional vulnerabilities in the state at macro level and specific vulnerable locations within the state.

The fourth section establishes the contextual scope of the report. The scope covers laying down a strategic framework for training and capacity development for each state. Under this section, the report seeks to find solutions to the following basic questions:

- How to make training a more systematic exercise in organised learning rather than an activity undertaken in an ad hoc manner?
Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction under NCRMP:

Final Report

How to make a shift from a completely supply driven training approach to a balanced approach which is more need based and demand responsive?

How to link training to the larger capacity development agenda and goal?

How to use training as a means to achieve some agreed capacity benchmarks and not take it as an end in itself?

Specific assessment of the following is also done along with other relevant aspects related to the state:

- Institutional setup for DM
- Addressing hazards and vulnerability
- Prevention and mitigation
- Preparedness
- Early warning
- Relief and recovery

The assessment covers a holistic approach to assess the above comparing with competent professionals, educators, trainers and field practitioners.

This fifth section includes a brief description about the framework to determine the overall capacity of the stakeholders involved covering non-training factors such as policy, strategy, planning, infrastructure, finance, work culture and enabling environment. The framework covers all concerned stakeholders broadly falling in following categories: (i) Stakeholders with reference to the Government sector or Government supported entities that have the formal responsibilities to address disaster management; (ii) Non Government Organisations including INGOs, CBOs, SHGs etc., working on disaster management and allied issues; (iii) Academic institutions, private bodies, research based academies and corporate supported bodies and associations; and (iv) Community representatives, volunteers, resident welfare associations, individual professionals, ward, village and GP members.

This sixth section includes a brief description of the institutions involved in disaster management in the state. The capacity in terms of resource persons and their qualification, trainings done and imparted at various levels and engagement with civil societies and other stakeholders is clearly portrayed. The capacity gaps are identified and portrayed and remedial measures are indicated to bridge such gaps for efficient implementation of the Human Resource and Capacity Development Plan.

The seventh section includes a brief description of the available capacities at micro level in the state. The capacity in terms of risk and vulnerability analysis, participatory exercises, trainings and mock drills, disaster management planning, integration of climate change aspect in planning, etc. up to block/village level is portrayed. Other specific initiatives for capacity development at micro level are also presented in the section.

The eighth section presents the quantified sample of personnel to be trained in specific sectors identified for capacity development. A model template for quantification exercise has been developed for health, education, PRIs/ULBs and rural development sectors, besides government officials and NGOs.

The ninth section includes a strategy to motivate people to carry forward the agenda for disaster risk reduction by providing incentives in different forms like financial, identity/designation, rewards, certificates, etc. Some of the illustrative examples of measures that can be taken are portrayed in the chapter.

The tenth section presents prioritised training themes and the intended level of training out of the identified training needs in previous sections. This section also includes information about the approach adopted for training purposes, mode of training, language of training, platform of training and target trainees.
The eleventh section describes the organisational framework for imparting trainings at State/District level. Sector specific training institutes in respect of their area of specialisation are identified in the section. This also includes a framework for coordinating and monitoring the identified institutes for training for avoiding overlaps. The roles and responsibilities of the identified post/personnel responsible for disaster management at various levels are also included in the section along with a detailed list of major functions to be carried.

The twelfth section includes information about the existing financial mechanisms for disaster management and how the financial resources will be met in the planned strategy for disaster management.

This report will serve as a tool to develop Human Resource and Capacity Development Plans at state level. The proposed structure of the plan can be modified based on the contextual need and priorities of the state.


This study on accreditation process, quality management and certification process of short term disaster management trainings formed part of a three-stage process that looked at accreditation and certification of disaster management trainings; accreditation and quality aspects of disaster management research and education; and accreditation of graduate and undergraduate courses in disaster management.

The study was based on a range of research activities including national and international literature review and interviews with key informants at the national level, as well as the six states covered by the study namely Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. It also covered ten case studies drawn from national and international best practices.

Figure 5. NBA Accreditation Process Steps

The approach taken was cognisant of the fact that virtually no accreditation system for disaster management trainings currently existed in the country and that any proposed system would need to be built from scratch. In this light, the study looked at various options. Conclusions and recommendations were made in light of the fact that an iterative approach is needed in a system of such complexity in order to develop a comprehensive accreditation system. Options presented needed to be viewed in this perspective. Additionally, any
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training strategy in the field of disaster management is made more complex due to the multidisciplinary nature of the field and the resultant cross-sectoral engagement that is required. The study took this into account, presenting options that carry different levels of trade-offs. These can be considered in making informed decisions towards establishing a contextualised accreditation and certification regime for disaster management training in India.

2. Findings

The study identified the following critical issues that are faced in terms of the quality, accreditation and certification of short-term disaster management training courses in India.

1. The number of institutions and programmes imparting DM training are very few as compared to the need in India. These operate in an almost total absence of a quality assurance system.

2. Institutions mostly impart certificates of participation or course completion. No evidence of certificates pertaining to quality of training or trainees is found across the country.

3. Certification of DM trainings is ad-hoc in general. Certificates are mostly issued by the institutions conducting the courses as per their own system and criteria.

4. There is no system of accreditation; neither of institutions nor courses nor trainers for DM training.

a. In order to establish an elaborate system of accreditation, it is important to plan for following challenges: The field of disaster management is intrinsically multi-sectoral and the number of sectors that have a direct involvement is very large.

b. There are pre existing training, education and capacity building programmes institutionalised in each sector and they have their own certification bodies.

c. Some of the sectoral capacity building and certification/licensing programmes are backed with appropriate legislation related to the sector and its capacity building institutions.

d. It is particularly challenging to capture quality and to build in quality assurance elements in very short-term training programmes due to lack of opportunity to impart and test capacity gain, these being more like orientation or sensitisation programmes.

e. Control and adherence to quality assurance systems in short-term training programmes is relatively easier in the government system and in training programmes of government agencies than academic and non government systems.

f. Accreditation and certification of volunteers undergoing short-term training can pose the risk of the trainers and training/accreditation bodies being held accountable for adverse outcomes and damages caused by subsequent actions of trained persons. Therefore, conditions of certification must be specified while assuring the quality of short-term training.

g. State and local context specific issues make national standardization of curriculum difficult for short-term training of persons related to operations. A multi level standardisation approach can be evolved for this through the state institutions identified for the implementation.

h. Training institutions are themselves very short of capacity in terms of trainers, facilities and curriculum and will find it difficult to meet high standards suddenly. In such cases, external support can be facilitated to introduce quality and accreditation
as well as to promote participation of training institutions.

i. There are no existing national accreditation agencies that can take on the role of accrediting DM courses since these courses address a mix of technical and social dimensions of disasters. At the same time it is not advisable to split DM training courses across various sectoral accreditation agencies as it will dilute the element of consistency.

3. Recommendations

Considering the Indian context of disaster management training courses and their quality, accreditation and certification aspects and drawing lessons from national and international best practices, the following five options emerged for establishing a context specific and suitable accreditation system for India:

1. An Independent Council for Disaster Management Education and Certification
2. A Council established under NDMA/ Ministry of Home Affairs
3. A Council established under the Ministry of Human Resource Development
4. NIDM as an Accreditation Body for Disaster Management Courses
5. Accreditation through linkages established with National/International Systems

The first option was seen as the most effective one given its autonomous status and alignment with the line ministries and departments. Representation of concerned line ministries in the council or alternate mechanism was seen as an essential element to address the cross-cutting, multi-sectoral and multi-stakeholder nature of disaster management training programmes in the country.

Appropriate accreditation processes also need to be established, based on the recognised steps of application, self assessment, criteria based assessment, time-based accreditation, reassessment and reaccreditation. For disaster management trainings though, the set of criteria for assessment needs to be much more broad based than any other such programmes due to the multi-sectoral nature of the subject.

In accordance, the certification regime has to be developed and tuned to the accreditation system for the purpose of quality assurance. It must also be tuned to the national training framework for the purpose of ensuring flexibility and outreach across different levels, hazards, geo-climatic regions, administrative regions and sectoral areas of intervention.

DELIVERABLE 8: Consultative workshop with NDMA/ NIDM/ States to finalise the above report on accreditation process and quality management

A consultative workshop was held at NIDM on 03 October, 2013, to finalise the report on accreditation process and quality management. The aim of the workshop was to facilitate discussions to get useful comments and feedback, updated facts and information from key professionals in the sector to validate the issues included in the project and to raise other relevant issues worth mentioning in the strategy for the training policy.
The workshop focussed on the following thematic areas:

- Training need analysis
- Training gap analysis
- Quantification and prioritisation of training needs
- Strategic framework for implementation of training policy

The workshop was carried out in three sessions. The first session focused on the SWOT analysis. It highlighted the extent of the field data, key informant data and literature review outputs used to arrive at the SWOT analysis. The aspects of training needs analysis, training gap analysis, quantification and prioritisation of training needs were also presented. During the session various topics were discussed covering various approaches for training that need to be followed, training gaps, encouraging disaster risk reduction, sustainability of DRR in various sectors, developing education in DRR and awareness creation for DRR at various scales.

The second session discussed the strategic framework for implementation of training. It highlighted the challenges related to making training a systematic exercise; shifting from supply to demand driven; linking training to a larger goal; and seeing training as a means and not an end. It presented key elements of the strategy, including goals, institutional arrangements and systems. A perspective plan was also presented, with three levels ranging from short-term of 0 to 2 years to a long term plan of 5 to 10 years. Twelve prioritised training themes, a conceptual framework and operational framework were also presented.

The third session focussed on accreditation, quality management and certification of short term trainings. The session defined accreditation and shared the activities that have resulted in the study findings. It highlighted the breadth of the training institutions and programmes, including the strengths of the training system. It raised the key points under concerns in quality accreditation and certification. It shared how the thinking started from the National Training Policy and accreditation system. It shared the approach and strategy as based on the current initiatives in India and discussed the multi-tiered approach, looking at institutions, faculty and programmes. It covered the quality management tools, accreditation process and criteria and the certification process. Under the recommendations, the presentation shared five options; suggesting strengths of the option of having an independent council for accreditation purposes and an aligned certification system with required strengths.

**DELIBERABLE 9: First Set of Training and ToT modules (Two training modules)**

**Part A – Panchayati Raj Institutions (PRIs)**

This training package was developed as a tool to train master resource persons on strengthening Panchayati Raj Institutions (PRIs) for mainstreaming disaster risk reduction (DRR) and climate change adaptation (CCA) in development.

Panchayati Raj Institutions (PRIs), as institutions of local self-governance, are responsible for implementation of development programmes at the local level in India. Some of the prominent national flagship programmes implemented at this level in the rural areas include:

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2 PRIs are institutions of local self-governance, where elected representatives of people run the local government: these elected representatives are members of Gram Panchayats (GPs) at the village level and of Urban Local Bodies (ULBs) in the urban areas. The PRI is a statutory body elected by the local people through a well-defined democratic process with specific responsibilities and duties. The elected members are accountable to the people of the ward, rural community, and block and the district.
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National Rural Health Mission (NRHM), National Rural Livelihoods Mission (NRLM), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Sarva Shiksha Abhiyan (SSA) and Indira Awas Yojana (IAY).

Disaster management is both a development and a governance issue. If development is ‘good change’, disasters are bad change. Disasters destroy development gains of many years in a matter of few minutes and hours. There is a growing global consensus that investing in disaster risk reduction is the most effective way of dealing with disasters. It is also widely acknowledged now that DRR can be effectively achieved by mainstreaming it into regular development programmes.

In view of the general policy focus on democratic decentralisation including decentralised provision of infrastructure and basic services to people in India, PRIs have to be the key institution in driving the disaster risk reduction agenda at the local level. Because of their central role in implementation of development programmes and their ability to engage with people whom they represent, PRIs are also well positioned to ensure that preparedness and mitigation activities are built into ongoing development programmes with the help of local people.

However, this has yet to happen in practice on the ground despite almost 20 years of the 73rd and the 74th constitutional amendments mandating PRIs as the vehicle for effective implementation of development programmes at the local level including provision of basic services to people in a decentralised fashion.

The field study data revealed that only in 6% of the Gram Panchayats (GP) did PRI members identify their role in disaster management. This is obviously due to a lack of clarity about their own roles among the PRI members and underlines a training and capacity development gap that needs to be addressed.

In view of the above, it is desirable to have a training intervention that seeks to strengthen PRIs for mainstreaming DRR in development. This training should do the following: one, orient the PRI members about their roles and responsibilities in implementation of development programmes and; two, upgrade their knowledge and skills about the processes and mechanisms for mainstreaming DRR into development.

About the training package

This was one of the seven training of trainers (TOT) packages prepared under the Component C of the National Cyclone Risk Mitigation Project (NCRMP) implemented by Government of India with the financial support from the World Bank. All the seven TOTs were designed in a modular fashion. Each TOT consisted of two modules: one, a base module that deals with a specific subject matter related to a specific sector; and two, a module on training design and delivery.

Each module was divided into different learning units and each learning unit into a number of sessions. Each session begins with a statement of its purpose, its intended learning outcomes, the skills needed by the facilitator and materials required. All the modules, learning units and sessions therein are built on the basis of the principles of adult learning. As adults learn more from observation, experience and reflection, methodology for conducting most of the sessions is based on experiential learning methods.

While the focus of training approach and methodology is on experiential methods, the manual uses a combination of traditional learning methods, such as presentations and discussions, along with more participatory and experiential learning approaches, e.g. case study based group work, role play, and reflections on personal experience. Practical tools and frameworks are provided throughout. There are numerous references to other sources of relevant information.
A list of hand outs, sources, references and further readings is given for each session. Key learning points for each session are defined so as to help the facilitator sum up the learning at the end of each session. As required, these messages can also be presented with the help of power point, cards or flip charts or made available to participants in the form of a handout.

This training pack for PRIs is designed for a five-day workshop in which three days are devoted to the domain training module and the rest two days are designed to offer practical skills in design and delivery of training. Though the module is organised in a particular order, the pack is intended to be a flexible resource, in order to allow the trainers to decide how to use it according to the varying needs of each set of participants and varying specific contexts. The modules and sessions can be used in the order presented, on their own, or in combination with other individual sessions and modules.

The material can be adapted by the facilitator to the specific context or needs of the participants. Different and more relevant case studies can be substituted. The way the sessions are delivered may also depend on whether there is more than one facilitator, and if so, what expertise each brings to the training session. Estimated timings for sessions are offered, but these should be adapted to fit the time available and the group’s level of experience and expertise.

**Part B – Rural Development**

This training package was developed as a tool to train policy makers and senior programme manager for mainstreaming disaster risk reduction (DRR) and climate change adaptation (CCA) elements into policy making, planning and programming processes within the rural development sector in India.

India is the second most populous country after China. Total population of the country is 1210 million (census 2011) and annual population growth is 1.77 percent. It comprises of 640,930 census villages and 7933 towns. Economically cities are categorized as growth engines of the economy but 68.2 percent of the 1210 million people are living in the rural areas. In terms of GDP it is estimated that urban contribution is 65 percent to GDP, but agriculture still remains the primary sector. It is the largest employment providing sector in the country and growth of the secondary and tertiary sectors is directly dependent on it. Thus rural development is one of the most important sectors of the Indian economy in many ways.

India is among the world’s most disaster prone areas. Of the 35 States and Union Territories, as many as, 27 are disaster prone, (Gol, 2004a). Most disasters in India are water related. At aggregate country level, India ranks third with 21 significant disasters recorded (China recorded 38, followed by US which recorded 31). In terms of victims India ranked third with 7.3 million after China-88 million and Philippines-8.6 million. China, US and India also remain the countries with the highest reported disaster related damages (China- 13.5 billion US $, US- 5 billion US $ and India -3.3 billion US $) (CRED, 2007).

The available data for 2007/08 also has India reporting the third highest number of significant disasters, viz, 18 as against 22 reported by US and 20 by China. These trends are likely to exacerbate in the future with climate change impacts. The projected increase in precipitation and rainfall, the glacial meltdown and rising sea levels are likely to affect India particularly severely, creating conditions for more hazardous events and will lead to increase in incidence of floods, cyclones, and storm surges. Though it is not possible to predict the future frequency or timings of extreme events, there is evidence that the risk of drought, flooding, and cyclone damage is increasing and will continue to do so.

Climate change impacts are also likely to threaten India’s food security, increase water stress and increase occurrences of diseases especially malaria. Lack of availability and access to
technological and financial resources coupled with a high dependence on climate sensitive sectors—agriculture, fisheries, forestry—have made India highly vulnerable. A large and growing population with high population density, a low-lying coastline and an economy closely tied to its natural resource base, further aggravates the vulnerability.

Integration of disaster risk and climate change resilience into sectoral and sub-sectoral plans and strategies would have large scale implications on the development outcomes and their sustainability over time. Various important sectors including drinking water, sanitation, housing, electrification, transport, employment/livelihoods are equally important for improvement of quality of life of rural masses and have knock on effects on the overall gains of DRR and CCA sensitive development planning. Integration of DRR and CCA in the development plans and programmes is important for sustainable development and resilience building of all the sectors and actors. This module is designed to cater specifically to the rural development sector in India.

There is a huge scope of decentralised planning in flagship development programmes of the Ministry of Rural Development, Government of India. Key programmes are National Rural Livelihoods Mission (NRLM), Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) and Indira Aawas Yojana (IAY). Mainstreaming DRR and CCA concerns within program design and strategy formulation of these programmes can make their implementation on the ground truly effective.

About the training package

This was one of the seven training of trainers (TOT) packages prepared under the Component C of the National Cyclone Risk Mitigation Project (NCRMP) implemented by Government of India with the financial support from the World Bank. All the seven TOTs were designed in a modular fashion. Each TOT consisted of two modules: one, a base module that deals with specific subject matter related to a specific sector; and two, a module on training design and delivery.

Each module was divided into different learning units and each learning unit into a number of sessions. Each session begins with a statement of its purpose, process, its intended learning outcomes, the skills needed by the facilitator, and materials required. All the modules, learning units and sessions therein are built on the basis of the principles of adult learning. As adults learn more from observation, experience and reflection, methodology for conducting most of the sessions is based on experiential learning methods.

While the focus of training approach and methodology is on experiential methods, the manual uses a combination of traditional learning methods, such as presentations and discussions, along with more participatory and experiential learning approaches, e.g. case study based group work, role play, and reflections on personal experience. Practical tools and frameworks are provided throughout. There are numerous references to other sources of relevant information.

A list of hand outs, sources, references and further readings is given for each session. Key learning points for each session are defined so as to help the facilitator sum up the learning at the end of each session. As required, these messages can also be presented with the help of power point, cards or flip charts or made available to participants in the form of a handout.

This training pack for senior level RD officials is designed as a five-day workshop in which three days are devoted to the domain training module, which can be organised separately for policy makers and senior programme managers. The remaining two days are designed to offer practical skills in design and delivery of training and meant for those who are willing to offer their services as trainers.
Though the module is organised in a particular order, the pack is intended to be a flexible resource, in order to allow the trainers to decide how to use it according to the varying needs of each set of participants and varying specific contexts. The modules and sessions can be used in the order presented, on their own, or in combination with other individual sessions and modules.

The material can be adapted by the facilitator to the specific context or needs of the participants. Different and more relevant case studies can be substituted. The way the sessions are delivered may also depend on whether there is more than one facilitator, and if so, what expertise each brings to the training session. Estimated timings for sessions are offered, but these should be adapted to fit the time available and the group’s level of experience and expertise.

**DELIVERABLE 10: Finalised report on accreditation process and quality management and SWOT analysis of status of DM related education and research**

This study on accreditation process, quality management and SWOT analysis of disaster management research and education in India formed part of a three-stage process that looked at accreditation and certification of disaster management trainings; accreditation and quality aspects of disaster management research and education; and accreditation of graduate and post-graduate courses in disaster management.

The study was based on a range of research activities including national and international literature review and interviews with key informants at the national level, as well as in the six states covered by the study namely Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. It also included case studies drawn from national and international best practices.

The approach taken was cognizant of the fact that virtually no accreditation system for disaster management research and education currently existed in the country and that any proposed system would need to be built from scratch. In this light, the study looked at various options. Conclusions and recommendations were made in light of the fact that an iterative approach was needed in a context of such complexity in order to develop a comprehensive accreditation system. Additionally, any research and education strategy in the field of disaster management is made more complex due to the multidisciplinary nature of the field and the resultant cross-sectoral engagement that is required. The study took this into account, presenting options that carry different levels of trade-offs. These can be considered in making informed decisions towards establishing a contextualised accreditation and certification regime for disaster management research and education in India.
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The report on DM related research and education followed the report on accreditation of short-term trainings and certification and had engrained linkages in its approach and recommendations.

Internationally disaster management research is found anchored in universities, government research institutions such as the Centre for Research on Epidemiology of Disasters, Belgium, and non-profit organisations such as the International Federation of Red Cross and Red Crescent Societies. Besides these, there are also independent research centres carrying out cutting edge research exclusively on disaster management themes such as the Asian Disaster Preparedness Centre and networks of organisations such as the World Meteorological Organisation. The nature, source and funding of disaster management research is widely diverse at the international level across all of these centres. New areas of disaster management research have emerged including resilience, climate change and integrated disaster management, which indicate the future research agenda and can be included into a national agenda.

Research on disaster management in India is still in nascent stages even though the enquiry of disasters in India is historical. Current research is spread across universities, colleges, government agencies such as the Indian Meteorological Department and the Central Arid Zone Research Institute, and non government institutions such as All India Disaster Mitigation Institute. There is work happening all across India but very little is published, validated or explicitly contextualised to the practice of disaster management in the country.

The research institutes looking at the technical dimensions of DM were established much earlier and are more evolved than many of those focusing on social aspects. Action research and data-based case study documentation are more common than detailed fundamental research and development. Analysis and application of case study lessons is still limited and case study methods are not evolved enough to draw applicable lessons in detail for the purpose of teaching.

Different institutions have their core agenda for data collection and research, with little or no inter-linkages. There is scope to develop a national agenda and a set of priority areas to define and bring new directions to DM research. Apart from the existing practices of action research and case studies, new methodologies and areas of further research including innovations need to be identified and planned.

A SWOT analysis of disaster management research in India showed strengths in the areas of
extensive institutional infrastructure, increasing availability of high precision data, legal and policy frameworks and increasing interest and fund availability for disaster management. It showed weaknesses in the areas of lack of comprehensive perspective, ad-hoc approach, policy-practice disconnect and continued focus on relief rather than risk reduction. It showed opportunities in the shape of national flagship programmes, new departments and courses in universities, and increasing recognition of need for quality management in disaster management; and threats in the shape of impediments to collaborative approach and inadequate research feeding education and plans and ill equipped human resource implementing risk reduction programmes.

The study led to a model to map the extent of quality assurance and accreditation intervention required to address the complete outreach of disaster management capacity building efforts. The model looks at the two primary dimensions of addressing accreditation in outreach and is an overall framework being used under the study to address the scope and range of quality management and accreditation of research and education. Scope covers the structure and programmes, including accreditation of institutes/organisations; faculty; programmes/courses; process; and the individuals. Range covers quality management and accreditation that is focusing on DM awareness/sensitisation; short term trainings; role-based/sector-based courses; education certificates, diplomas, degree courses; and research.

Using this approach, a roadmap for comprehensive research and knowledge management is felt to be an urgent for the country. A wider and holistic perspective would require a structure for keeping records and their management for efficient DM research and education. The activities will include documentation, innovation, collaborative research, planning a calendar for research, mobilising funding, establishing knowledge management systems, institutionalisation through research clusters, and encouraging validation and publication.

Disaster management education in the international context is highly advanced in developed nations such as the USA, UK and Japan. Degree courses in disaster management across 50 international universities were documented, and it was observed that many of these were linked with research centres in a relationship that benefited both the research stream as well as the imparting of education on disaster management. The disaster research centres and institutions in universities cover both biophysical and social aspects of disasters, as well as their inter-linkages for a multi-disciplinary and integrated research. Studies in international universities are exploring new methodologies and participate actively in international peer reviewed journals.

Disaster management education in India on the other hand is still in early stages and has only gained momentum in the postgraduate courses in recent years. Twenty masters degree courses related to disaster management were documented across universities in India, with other streams such as geography also including disaster related themes within their curriculum. Some universities such as Tata Institute for Social Studies, Mumbai, and School of Planning and Architecture, New Delhi, have also established centres for disaster management that cut across their academic streams and link disaster management research, education and practice. Most of the curriculum for disaster management however is non-standard and also lacks diversification that is required to fulfil on the varied needs of disaster mitigation, preparedness, response and recovery.

Though there is currently no regime for accreditation of disaster management education in India, there are a number of organisations providing accreditation and quality management for higher education in other streams in the country. Twenty-five such agencies and programmes were identified, and the benefits of accreditation seen a various levels in the concerned disciplines.

A SWOT analysis of disaster management education in India highlights strengths such as...
existing legal and policy frameworks, extensive institutional infrastructure, growing interest in disaster management, a number of institutions accredited for other streams; weaknesses such as very few disaster management educators, less emphasis on applied skills, ad-hoc curriculum not contextualised to India; opportunities including interest in disaster management and new courses being launched, increasing employability due to organisations emerging in disaster management field; and threats such as dropping enrolment due to poor faculty, curriculum and delivery of education in nascent programmes and fragmentation across sectors.

A roadmap for disaster management education is recommended to look at a holistic knowledge management system that strengthens disaster management research and education. The establishment of a programme for accreditation, linkage of school and higher education on disaster management and promotion of professional and vocational disaster management courses are some of the key features of such a roadmap. The approach for accreditation and quality management thus emerging proposes accreditation of institutions, quality management of research, accreditation of courses, and assessment of outcomes in a comprehensive and multi-tiered fashion covering institutions, faculty and programmes. Tools are proposed for management of quality and maintaining standards, besides accreditation criteria and parameters. A policy and process approach is recommended using existing national systems such as those of National Board of Accreditation as reference points. An implementation strategy is proposed based on the various dimensions outlined in the study, and using comprehensive evaluation standards for accreditation.

Based on the findings of the study and the consultations held with various stakeholders, it is recommended to establish a National Programme on Disaster Management Accreditation at NIDM, with a multi-disciplinary representation from various concerned streams and their accreditation agencies. The programme will take various steps to encourage disaster management research and ensure its quality, and to encourage disaster management education with accreditation. As the programme gets established and the scope of work increases, it may be scaled up to an independent council based on the experience in other streams. Various steps to be taken for the quality management and accreditation of disaster management research and education are outlined for being taken up by the programme.

**DELIVERABLE 11: Consolidated report on suggestions for accreditation process and its policy for DM technical courses at graduate and post graduate level**

This study on accreditation process, quality management and certification process of disaster management in undergraduate and postgraduate technical education had been carried out as part of the larger initiative on preparing a long-term training and capacity building strategy for disaster risk reduction under the National Cyclone Risk Mitigation Project. It formed part of a three-stage process that will look at accreditation and certification of disaster management trainings; accreditation and quality aspects of disaster management research and education; and accreditation of undergraduate and postgraduate technical courses in disaster management.

The study was based on a range of research activities including national and international literature reviews and interviews with key informants at the national level, as well as in the six states covered by the study namely Andhra Pradesh, Bihar, Gujarat, Odisha, Uttarakhand and West Bengal. It also covered case studies drawn from national and international best practices.

The approach taken is cognizant of the fact that virtually no accreditation system for disaster management education currently exists in the country as of now and that any proposed system would need to be built from scratch. The study takes this into account, presenting a
way forward that can be considered in making informed decisions towards establishing a contextualised accreditation and certification regime for disaster management education in India in an incremental fashion.

At the post graduate level disaster management education cuts across various disciplines covering different aspects related to disaster management as studied in sciences such as engineering, medical studies, architecture and geology, as well as social sciences such as psychology, sociology, geography and social work. International practices show that the highest number of courses on disaster or emergency management is found in the USA, UK and Australia. In international universities most of the courses are named as emergency management rather than disaster management. A study of fifty international postgraduate courses indicates a variety of areas of specialisation, including health care, public safety, crisis management and public administration. Internationally these are also seen as linked to careers in disaster management as consultants, planners, administrators, managers, analysts and safety officers.

Credit systems are also highly evolved internationally, with credit sharing and transfer options available across institutions and also across academic streams. The Bologna Process, a common degree and credit transfer system across Europe and Australia allows enhanced student and staff mobility and is an example of collaboration in quality assurance. There is high professional recognition for these courses. The programmes themselves are a healthy mix of coursework, independent research and field exposure.

Postgraduate courses on disaster management in India, on the other hand, are still in early stages of development and lack adequately trained faculty and contextualised course curriculum. Though their number is not high, such courses are increasing and at present this study has mapped 19 such courses across the country. The courses have little variation in terms of overall approach and thematic focus. Besides courses primarily on disaster management, the subject also finds a place in other mainstream technical streams such as urban, regional and environmental planning; architecture; and medicine. Some of the institutions like Tata Institute for Social Studies, Mumbai, VIT University, Vellore, IIT Roorkee, and School of Planning and Architecture, New Delhi, have also established specific centres on disaster management. There is however wide variation in the programme structure, curriculum objectives, course content, faculty, administration systems, facilities, networks and financial status of the courses and centres. While some are well funded and accordingly have good human resource deployment, facilities and activities, others are still to develop to this level and currently operate with very little resources, weak agenda and limited programmes and outreach. Besides government universities and institutions, some of the private universities are also taking initiative in the area and are doing well.

Table 4. Accreditation Model for Scope and Range

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<tr>
<th>RANGE</th>
<th>SCOPE</th>
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<tbody>
<tr>
<td>Institutions</td>
<td>Faculty</td>
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<tr>
<td>Colleges and universities offering undergraduate education</td>
<td>Faculty from different subject background can be trained for DM education. A faculty can also be appointed in</td>
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<tr>
<td>A course covering different aspects of DM as compulsory apart from language courses</td>
<td>This relates the content and delivery mechanism including theoretical and skill based</td>
</tr>
<tr>
<td>Certification for performed demonstration of knowledge gained both theoretical and practical skill based within the</td>
<td></td>
</tr>
<tr>
<td>Honours in DM (Undergraduate education)</td>
<td>Colleges and universities offering Bachelors Degree and diploma courses in DM</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Masters in DM (Postgraduate education)</td>
<td>Colleges and universities offering Masters Degree, PG Diplomas and Certificate courses in DM</td>
</tr>
</tbody>
</table>

Overall the number of courses offered in the country and the cadre being developed is miniscule in comparison to the projection of professionals needed in the sector as established in the SWOT Analysis and the Strategic Framework for Implementation of Training under the current study. A SWOT analysis indicates strengths in the areas of legal and policy framework, extensive institutional infrastructure, increasing interest in the subject, an evolved overall accreditation regime and developed curriculum in some streams; weaknesses such as lack of cross linkages across different levels of education, dearth of qualified teachers, total absence of quality management systems in disaster management education, and weak and ad-hoc curriculum; opportunities in the form of extensive institutional infrastructure, upcoming disaster management programmes at national level and related investments in the sector; and threats in the areas of widely varying quality benchmarks leading to confusion and inability to collaborate for this multi-disciplinary subject.

The status of disaster management education at the undergraduate level is lagging far behind the postgraduate level, even though it should be very strong at the undergraduate level as the foundation level for the subject. The study observed a large number of undergraduate degree courses on disaster management in developing countries, with 65
such courses just in the USA. In most of these courses students have options to choose disaster management either as a major or minor subject for their undergraduate degree. Most universities either give Bachelor of Arts or Science degree in Emergency Management, which address basic hazards and emergency principles. Many universities have combined public safety and homeland security with emergency management. Some universities also offer applied courses in emergency management at this level. Most of these courses include both theoretical as well as fieldwork relating to disaster management. The institutions offering a bachelors degree in disaster management and emergency management are accredited both for course and institution. Universities in the USA go further to get recognition from institutions such as the International Association of Emergency Managers which brings further credibility and on-ground validation to their courses.

In India however, the number of institutions providing undergraduate degrees in disaster management are very few. Disaster Management appears mainly a part of the major degree offered in any other course, mainly geography. There is only one full-fledged course at the bachelor’s level, offered at the Global Open University in Kohima, Nagaland that provides BA (Hons) degree in Disaster Management in Hindi medium. With only one full-fledged course, that too without established credentials and very few indirectly linked courses on DM at the undergraduate level, there is an acute gap between institutions offering undergraduate courses on disaster management in India and the need of trained professionals as established by the capacity building study.

The study thus established the urgent need for accreditation of disaster management education to be initiated in India. It is important to note that accreditation has multiple benefits for the institutions, courses, students and the sector. As there are a number of accreditation bodies for other courses in the country, their frameworks can be used for reference, and a national approach for disaster management accreditation can be developed with their involvement as disaster management is a cross cutting subject that is related to most other streams of education.

The model of the Emergency Management Accreditation Programme of the USA was found as suitable to the Indian context at present. Using this approach, a National Programme on Disaster Management Accreditation is recommended for establishment at the National Institute for Disaster Management, which is the national focal institution for disaster management research and capacity building in India. Using the National Board for Accreditation as a reference, a fully evolved system of quality management and accreditation is proposed for disaster management training, research and education in India through the national programme. This will include accreditation methods and standards, quality management tools, accreditation criteria and parameters, and certification and credit systems. An implementation approach is outlined, with the establishment of the national accreditation programme, development of appropriate policies and institutions to support the programme, and initiation of a voluntary accreditation system. Once the programme is well established and the increased scope warrants, scaling it up to the level of an independent council may be considered.

The present report on DM in undergraduate and postgraduate education follows the reports on accreditation of short-term DM trainings, and of DM research and education. The overall recommendations from all the three reports converge and need to be seen together and comprehensively.
DELIVERABLE 12: Second Set of Training and ToT modules (Two training modules)

Part A – Urban Local Bodies (ULBs)

This training module was developed as a tool to train city managers and administrators for mainstreaming disaster risk reduction (DRR) and climate change adaptation (CCA) into city development plans (CDPs) and their implementation strategies in India.

Increasing urban population in the country is putting an enormous amount of pressure on limited infrastructure and services. High density of population in cities accompanied with the ever increasing flux of migrant people in search of jobs and opportunities adds to the overall complexity of urban governance. A high percentage of urban migrants live in slums without basic services such as water, electricity, sanitation and health care. During the field study in Kolkata slums in January 2013, people said that ‘their daily life in slums is a bigger disaster than any that could hit them in future’.

Administratively India is divided into 35 States and Union Territories, which comprise of 640 districts, 7935 towns including 4041 statutory towns and 3894 census towns (Census 2011). Out of 4041 statutory towns 468 are categorized as class I towns (towns with 100,000+ population) and 70 percent (265 million) of urban population is living in these towns. Out of the 468 class I towns 53 towns are million plus population towns and 45.5 percent (160.7 million) of total urban population are living in these towns (Census 2011). Among the million plus cities three are categorized as mega cities with population of 10 million plus. These are Greater Mumbai (18.4 million), Delhi (16.3 million) and Kolkata (14.1 million). The urban local bodies (ULBs) are categorized as Municipal Corporation, Municipal Councils and Nagar Panchayats on the basis of population of respective municipal areas.

74th constitutional amendment has provided constitutional recognition to the Urban Local Bodies and they are expected to be empowered as units of local self-governance or city Government. Government of India’s flagship program Jawaharlal Nehru National Urban Renewal Mission (JNNURM) aims at strengthening of ULBs and development of urban infrastructure including water, sanitation, waste management, storm water drainage, roads, transportation etc. considering long term perspective plan of the city. Rajeev Awas Yojana (RAY) aims at making cities slum free through provision of in-situ development, provision of services, relocation and redevelopment considering whole city approach. Urban Local Bodies (ULBs) are responsible for preparation of City Development Plan under JNNURM and slum free city plan under RAY.

Generally disaster risk reduction (DRR) and climate change adaptation (CCA) are missing from the urban planning process: these include CDP (City Development Plan), CSP (City Sanitation Plan), SFCP (Slum Free City Plan) and ward plans, which offer a very good opportunity for the integration of DRR and CCA in the city planning processes.

Fast track urban reforms mainly focused on strengthening of the urban local bodies were started in 2005. Preparation of city development plan (CDP) is one of the most important tasks to be completed at the ULB level under this reform initiative. City Development Plans including CSP and SFCP are an opportunity for the integration of disaster risk and climate change resilience in urban planning and sectoral and sub-sectoral development programs. Development/service benchmarking has been initiated under the sector reform programs and inclusion of elements of DRR and CCA in city development plans could be included as capacity benchmarks.

About the Training Module

While the focus of training approach and methodology is on experiential methods, the module uses a combination of traditional learning methods, such as presentations and
discussions, along with more participatory and experiential learning approaches, e.g. case study based group work and reflections on personal experience. Practical tools and frameworks are provided throughout. There are numerous references to other sources of relevant information.

A list of handouts is given for each session as required and the list of sources and references is given at the end of the document. Key learning points for each session are suggested so as to help the facilitator sum up the learning at the end of each session. However, the key learning points can be revised and re-defined in view of emerging new knowledge, insights and perspectives.

As required, these messages can also be presented with the help of power point, cards or flip charts or made available to participants in the form of a hand-out.

This training module for city managers and municipal administrators is designed for a five-day workshop in which three days are devoted to the sub-module on urban development and the remaining two days are designed to offer practical skills in design and delivery of training. Though the module is organised in a particular order, it is intended to be a flexible resource, in order to allow the trainers to decide how to use it according to the varying needs of each set of participants and varying specific contexts. The sub-modules, learning units and sessions can be used in the order presented, on their own, or in combination with other individual sessions and learning units within sub-modules.

The material can be adapted by the facilitator to the specific context or needs of the participants. Different and more relevant case studies can be substituted. The way the sessions are eventually delivered may also depend on whether there is more than one facilitator, and if so, what expertise each brings to the training session. Estimated timings for sessions are offered, but these should be adapted to fit the time available and the group’s level of experience and expertise.

**Part B – Health**

This training module was developed as a tool to train master resource persons on preparation of hospital disaster management plans with a focus on provision of emergency health services.

India is the seventh largest country of the world with the total geographical area of 3,287,240 sq. km. (Census 2011). Such a large and diverse geo-climatic condition makes India highly vulnerable to different natural disasters. Out of 35 states/union territory, 22 are in the category of multi hazard prone states. India is highly vulnerable to earthquake, drought, flood, cyclone, landslide and avalanche. 68% of land mass is prone to drought, 60% is vulnerable to earthquake, 12% of the total area is prone to floods and 8% of the land is susceptible to cyclone. Changing climatic conditions, over exploitation of natural resources and unplanned urbanisation are adding on to the increasing frequency of natural disasters.

Total population of India is 1210 million (census 2011), which is the second largest in the world. A large population (more than 400 million) of poor with their multiple vulnerabilities accounts for India’s third rank in terms of victims of natural disasters.

Hospitals constitute a part of critical lifeline infrastructure in the context of disasters. A safe and resilient hospital not only ensures an effective healthcare response during disasters but also ensures the safety of the patients already being treated in those hospitals before, during and after disasters.

This calls for high order of preparedness in the hospital in order to deal with disaster related emergencies with mass causalities and the resultant need for hospital space, staff and resources at various levels. Though as mandated by the DM Act 2005 every hospital is
required to have an emergency plan in place but the past incidents like fire accidents in the AMRI hospital in 2001 raises a question on the effectiveness of the plan. The past experience also suggests that the plans available at the hospital are both not frequently updated and shared with the entire staff or/and there are no regular mock drills to carry out periodic preparedness checks or both. The field data collected during the study suggested that there has been no specific training given to the doctors or other staff who are supposed to prepare these safety plans.

The proposed training intervention seeks to create capacity at the level of hospital management to prepare and effectively implement the hospital disaster management plans.

The total number of government hospitals in the country is 11,614. To begin with, it is envisaged that 5 doctors from each government hospital would be a good number to train to begin with. The total number of personnel to be trained during the first five years would work out to be as follows:

### Universe to Be Addressed

<table>
<thead>
<tr>
<th>Category</th>
<th>Numbers to be trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government hospitals’ Doctors @ 5 from each hospital</td>
<td>58,070</td>
</tr>
<tr>
<td>Doctors attached to PHCs</td>
<td>30,198</td>
</tr>
<tr>
<td>Total Doctors</td>
<td>88,268</td>
</tr>
</tbody>
</table>

Source: [nrhm.gov.in](http://nrhm.gov.in/)

### About the training module

While the focus of training approach and methodology is on experiential methods, the module uses a combination of traditional learning methods, such as presentations and discussions, along with more participatory and experiential learning approaches, e.g. case study based group work and reflections on personal experience. Practical tools and frameworks are provided throughout. There are numerous references to other sources of relevant information.

A list of handouts is given for each session as required and the list of sources and references is given at the end of the document. Key learning points for each session are suggested so as to help the facilitator sum up the learning at the end of each session. However, the key learning points can be revised and re-defined in view of emerging new knowledge, insights and perspectives.

As required, these messages can also be presented with the help of power point, cards or flip charts or made available to participants in the form of a handout.

This training module is designed for a five-day workshop in which three days are devoted to the sub-module on hospital disaster management planning and the remaining two days are designed to offer practical skills in design and delivery of training. Though the module is organised in a particular order, it is intended to be a flexible resource, in order to allow the trainers to decide how to use it according to the varying needs of each set of participants and varying specific contexts. The sub-modules, learning units and sessions can be used in the order presented, on their own, or in combination with other individual sessions and learning units within sub-modules.

The material can be adapted by the facilitator to the specific context or needs of the participants. Different and more relevant case studies can be substituted. The way the sessions are eventually delivered may also depend on whether there is more than one facilitator, and if so, what expertise each brings to the training session. Estimated timings for sessions are offered, but these should be adapted to fit the time available and the group’s
Part C – Education

This training module was developed as a tool to train school teachers for creating a culture of safety through knowledge and education.

Use of knowledge, innovation and education to build a culture of safety and resilience at all levels is one of the key priority areas of Hyogo Framework for Action (HFA). The education sector is envisaged to be the key to creating awareness about disaster risks and sensitizing the students in schools and colleges about their possible role in disaster risk reduction. An early awareness in this is likely to result in reduction of damage and losses due to disasters and help young girls and boys to respond effectively as disaster managers and volunteers.

There is increasing evidence that students of all ages can actively study and participate in school safety measures, and also work with teachers and other adults in the community towards minimizing risk before, during and after disaster events. Mainstreaming DRR into school curricula aims to raise awareness and provide a better understanding of disaster management for children, teachers and communities. Accompanying structural changes to improve safety in building schools will not only protect children and their access to education, but will also minimise long term costs.

In the Gujarat 2001 earthquake 11,600 schools were destroyed or severely damaged. The main shock occurred during a national holiday so school deaths were not large, but tragic incidents involved students in schools for celebrations and, again children comprised half of more than 20,000 dead. In another incident 90 young children died in a school fire in the southern Indian state of Tamil Nadu which again highlighted the appalling state of schools—private and public—throughout the country. The tragedy pointed towards the steady deterioration of an already inadequate public education system and a proliferation of private schools that are often overcrowded, in shoddy buildings, and largely unregulated.

Generally, children are the most vulnerable group in all disasters but teaching DRR in schools will help raise awareness and give better understanding not limited to children and teachers, but to the community as well. When disasters occur, this in turn helps to minimize losses borne by the government. At the same time, investing more in strengthening school-building structures before disasters take place would help reduce long term costs, protect children, and ensure educational continuity after the event. In the light of this need, GOI has launched National School Safety Program in June 2011 with the vision of promoting a culture of disaster preparedness in the schools. One of the major objectives of the project is capacity building of officials, teachers and students.

India is the second most populous country after China. Total population of the country is 1.210 million (census 2011) and about 43 percent of it is in 5 – 24 year age group and about 24 percent in age group of 5-14 years. There are about 1.22 million schools (from primary to higher secondary) in which about 223 million children are studying. Besides, there are about 19,300 other educational institutions, which cater to around 8.7 million students. This estimate does not include students of BE/ Arch/ Medicine/ dentistry/ Nursing/ B. Ed. / Polytechnics. Enrolment in Open Universities has also not been taken into account.

It is estimated that about 1.8 million teachers are required to be trained (SWOT report, pg.139). Given the current capacities, training on such a large scale does not seem possible over next 5 years. Therefore, in order to be realistic, 1/3 (600,000) of the estimated number of teachers are proposed to be trained over a period of 5 years.

About the training module

While the focus of training approach and methodology is on experiential methods, the
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The module uses a combination of traditional learning methods, such as presentations and discussions, along with more participatory and experiential learning approaches, e.g. case study based group work and reflections on personal experience. Practical tools and frameworks are provided throughout. There are numerous references to other sources of relevant information.

A list of handouts is given for each session as required and the list of sources and references is given at the end of the document. Key learning points for each session are suggested so as to help the facilitator sum up the learning at the end of each session. However, the key learning points can be revised and re-defined in view of emerging new knowledge, insights and perspectives.

As required, these messages can also be presented with the help of power point, cards or flip charts or made available to participants in the form of a handout.

This training module is designed for a five-day workshop in which four days are devoted to the sub-module on role of education in creating awareness and the remaining two days are designed to offer practical skills in design and delivery of training. Though the module is organised in a particular order, it is intended to be a flexible resource, in order to allow the trainers to decide how to use it according to the varying needs of each set of participants and varying specific contexts. The sub-modules, learning units and sessions can be used in the order presented, on their own, or in combination with other individual sessions and learning units within sub-modules.

The material can be adapted by the facilitator to the specific context or needs of the participants. Different and more relevant case studies can be substituted. The way the sessions are eventually delivered may also depend on whether there is more than one facilitator, and if so, what expertise each brings to the training session. Estimated timings for sessions are offered, but these should be adapted to fit the time available and the group’s level of experience and expertise.

**DELIVERABLE 13: Finalisation of the report on suggestions for accreditation process and its policy for DM technical courses at graduate and post graduate level through a consultative workshop**

For finalisation of the report on suggestions for accreditation process and its policy for DM
technical courses at graduate and post graduate level through a consultative workshop was held at NIDM on 05 February 2014. The workshop aimed at facilitating discussions to share the findings on Accreditation Process and its Policy for DM Technical Courses at Graduate and Postgraduate Level, and the approach of the training modules being prepared under the study from key professionals in the sector and to get useful comments and feedback from them.

The workshop focussed on the following thematic areas:

- Training and TOT modules
- Accreditation Process and its Policy for DM Technical Courses at Graduate and Postgraduate Level
- Exploring linkages in different components of the study

The workshop was divided into two sessions. The first session focussed on training components and training modules. It highlighted the brief structure of TOT modules and presented the overall aim of creating Master Resource Persons at national and state levels. The different themes covered in the TOT modules were explained along with the structure adopted for training. The target audience and the universe to be addressed were also presented in brief. The training and performance objectives of modules were presented in detail, which portrayed performance, training and enabling objectives of all themes of the modules. The Learning Units in the modules were explained to give an overall insight of the modules and ask for participants suggestions to improve it further.

The second session highlighted the areas of the Capacity Building Study in detail for accreditation process, quality management and certification method of disaster management trainings, research and education and technical education at undergraduate and postgraduate levels. It presented the strengths of the disaster management education system and concerns in quality accreditation and certification. Good practices in training, accreditation and quality management was presented and approach and strategy for accreditation process and quality management was explained. The accreditation criteria, certification process, options for accreditation body and way forward for certification was also presented in detail. Status of international and national DM research and education was presented along with a roadmap for research and knowledge management. Based on this and SWOT summary of the study, findings and recommendation of DM research and education were presented. The overall presentation portrayed the framework for accreditation process, certification principles and implementation approach for disaster management education.

**DELIVERABLE 14: All expected outcomes of Public Awareness as indicated in scope of study (SWOT analysis, report, strategy for media campaign, module, handbook & guidelines for journalists)**

**Part A – National Media Strategy**

**The Background**

India’s teeming population can be covered through effective disaster risk reduction programmes only with the help of a significant, well organised, and sustained public awareness effort. SWOT analysis of the current programmes reveal a significant gap in both the level of knowledge among communities and the action taken on DRR at a local level.

Community groups that have survived on traditional knowledge are now faced with erosion in such knowledge systems and the invasion of technological practices that are locally not understood and cannot be managed in entirety. Changing contexts and new threats such as
climate variability are also leading to disruptions in existing local coping systems; and new knowledge is yet to emerge on these subjects locally.

The role of the community as a first responder and the need to influence community behaviour emerge very strongly from the study and form the fundamental basis of this national public awareness campaign. Public awareness efforts will need to focus on priority stakeholders at the local level; primarily including special vulnerable groups. It will need to deploy specifically designed and customised messages and media.

Analysis of 18 national and international public awareness campaigns also revealed a number of lessons that influenced the strategy. These included the need to identify targeted audiences; to link with other stakeholders and programmes; to create ‘active’ campaigns; to embed the model in the community; to localise messaging and tools; and to create sub-campaigns within broader themes.

The campaign also incorporates behaviour change communication (BCC) as intervention process that stimulates change in people’s actions to help create lasting change. For in India, many communication initiatives have succeeded in enhancing the dissemination of information, but have failed in going beyond that. BCC can help to stimulate lasting positive change in attitudes and practices. It takes into account the three levels of influence including:

- Personal (‘micro’) factors which are intrinsic to the individual, such as their level of knowledge or belief in their ability to change their behaviour and their habits.
- Social (‘meso’) factors which are concerned with how individuals relate to each other and the influence of other people on their behaviour.
- Environmental factors

The campaign

Against this backdrop, the national media campaign strategy adopts an overall empowering message of ‘Disaster risk reduction begins with YOU!’

The aim and objectives

The overall aim of the public awareness campaign is to create a multi-pronged approach for a strong public awareness campaign; penetrating from the national to community level. It will help build a culture of safety across the country in general and for communities at risk in particular. The core objectives are three-fold: Spread awareness to empower communities and build resilience; provide the tools for people to actively engage in risk reduction; and change behaviour patterns towards effective action.

Focused target audiences

The campaign focuses on seven identified focus groups:

*Local Panchayati Raj/Urban Legislative Body leaders*: As the last level of elected representatives, this target group serves as a key link to the government and has the legal power to enforce decisions in the community. They can influence policy decisions, representing the problems and views of the community to a wider forum. Through budget allocations and running of schemes, they can effectively form links between government policies and local risk reduction.

*Local champions*: A community’s teachers, doctors, self-help groups and other educated professionals serve as the unspoken, unelected advisors to the community. They are looked up to and trusted; and are often emulated even more than elected leaders. These local champions serve as the link between general people and the panchayat. Through their various vocations, they are a primary point to embed ‘seeds’ of awareness.

*Children*: Children, both enrolled in and out of school, are often more receptive and open to
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Information than adults. Internationally, the campaign on ‘children at the heart of DRR’ puts them in the driving seat. As the next generation, they will be the ones to carry on sustainable risk reduction practices. Children are also among the best channels to widely disseminate information as they tend to ‘take information home’; spreading it to their peers and among their families. At the same time, schools play a major role as a community asset during disasters. Children will play a core role in strengthening the resilience of these institutions.

**Women:** The heart of their families, women generally spend the greatest amount of time at home and are one of the most vulnerable groups. In many villages, migration by the men to the cities for work means that the women are left alone; making it even more critical to build their awareness and action. Not only are self-help groups run mainly by women, but empowering them has often had a highly visible impact. They can influence family spending to improve preparedness at the household level.

**Persons with Disabilities:** Unless particular attention is given to PWDs, they are always left out by default. There is an urgent need to empower and include them in any disaster risk reduction action. For a community can only be safe when each one of its most vulnerable members is safe.

**Elderly:** Though they are usually respected, the elderly are another group who are often left out. At the same time, the elderly are repositories of traditional knowledge and local innovations on disaster risk reduction. They are often more receptive to using and improving these techniques; which can be vital in small communities with limited facilities.

**Livelihood-based groups:** Livelihood compulsions can often restrict ‘safer’ behaviour. This includes fishermen going out to sea despite cyclone warnings or farmers refusing to evacuate during a flood. Targeting groups such as farmers, shepherds, fishermen, labourers and masons is therefore critical. Some of their inherent activities play a major role in DRR. So any breakthrough in getting these groups to incorporate risk reduction and preparedness measures as part of their daily routine will go a long way towards mainstreaming DRR!

**Messaging for sub-campaigns**

Under the overarching theme of disaster risk reduction, there lies a huge gamut of messages that need to be communicated to diverse target audiences. At the same time, several other factors including the particular hazard type, phase of the disaster cycle, the particular hazard and sectoral links need to be taken into consideration.

A series of messaging matrixes provide an overview of the core public awareness messaging required. While these lists are not exhaustive, it offers implementers of the campaign a solid foundation on which to steer their messaging.

**Mediums and tools for dissemination of messaging**

Activities that can promote Disaster Risk Reduction can occur in different contexts and in many different settings. A variety of tools are required to effectively disseminate the messages to a wide target audience and down to the last mile. Since the major thrust of the strategy focuses on localisation, the tools too include localised approaches that can have a direct impact on the audience. It looks at different angles from which to influence behaviour change. This includes mainstream broadcast media such as TV, print and radio; direct mailers such as flyers and brochures; outdoor mediums such as billboards; collaterals such as airline and bus tickets; and localised tools such as community radio, person-to-person contact, nataks and community events.

**Implementation**

In such a wide-ranging and multiple-focus campaign, with whom does the responsibility for
implementation lie? Implementing the strategy does not fall to the governmental agencies alone, nor should it. Success will require the commitment of all parts of society, including state and local governments, businesses, educational institutions and others. It is also important to engage the private sector and other external stakeholders as an essential component of nearly all of the activities described in this strategy.

This particular cascading model identifies the dissemination of the messages through the existing structure and tools of the Information and Broadcasting Ministry in collaboration with the concerned government departments at various levels that will assist in the dissemination of the messages.

**Use of this strategy**

This strategy document has been designed for use by a variety of stakeholders. At the National and State level, it is an overall guide to planning disaster risk reduction awareness campaigns. At the district level and below where it will actually be implemented, the strategy provides details on the type of messaging and appropriate mediums. This strategy provides a foundation and it is expected that greater detailing and localisation will be done at the state levels according to the particular needs.

The matrix of messaging could be of use also to non-governmental organisations and humanitarian groups working on disaster-related issues. Most importantly, this strategy aims to give a sense of consistency to the myriad of disaster risk reduction campaigns across the country and give an overarching theme to it.

**Part B – Handbook and Guidelines on Disaster Reporting**

**DISASTER REPORTING**

Both the toolkit on disaster reporting (handbook and guidelines) and the two TOT modules are centred around principles of disaster reporting. Keeping in mind the findings from the ground studies and the need for quick recall, these have been termed the ‘A-F and S of disaster reporting.’ This includes understanding disasters, accuracy, balance, consistency and collaboration, dignity, environment and development (going beyond the disaster), follow-up and safety. These are further sub-divided into the following elements:

**Understanding disasters**
- Basics of each hazard – what it is and how it is measured.
- Concept of a disaster vs. hazard and phases of the disaster cycle
- The role media can play across the disaster cycle

**Accuracy**
- Background information on the community
- Facts and figures
- Word choice
- Staying in context

**Safety**
- Precautionary measures and equipment
- Dealing with stress
- Ensuring safety of the community

**Balance**
- Balance of areas
- Balance of voices
- Balance of positive and negative stories
- Balance of activist vs. neutral reporting

**Dignity**
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- Interviewing
- Visuals
- Overall reporting

**Consistency and Collaboration**
- Who needs to collaborate
- Consistency of reports
- Common goals

**Follow up**
- Delivery of and use of aid
- Long-term recovery
- Lessons and good practices

**Environment and Development**
- Climate change and small-scale disasters
- Silent disasters
- Development issues
- Linking stories to mainstream issues

The TOTs also include sections on the nature of changing mediums (such as social media).
The discussion here centres around how to adapt stories to different mediums; keeping consistency and verification issues

**TOOLKIT ON DISASTER REPORTING – HANDBOOK AND GUIDELINES**

The handbook and Guidelines on disaster reporting are quick reference guides that can be easily carried around. The handbook is structured around understanding disasters and seven vital principles that influence a disaster story. It has some detailed background information on each principle that can help those unable to attend the training course grasp the crux of the messaging and as a future reference guide. It is meant as a reference that can be used in conjunction with the Principles of Disaster Reporting guidelines. This guideline is a concise document that touches upon each of the seven core principles with a key action point, core issues and a checklist of actions that will help prompt thought about the actions and decisions to take during disaster reporting.

**Part C – TOT Module for Entry Level Journalists**

Journalists play a critical role in informing the public during disaster preparedness, response and recovery. However, with the race for TRPs, it is usually only the dramatic components of disasters that are projected to pump up ratings. Reporting has also generally been confined to during and just after disaster events (response and early recovery). There is little, if any, coverage of risk reduction aspects during non-disaster times. Part of the ability to improve disaster reporting rests with instilling these qualities and insights early.

However, currently disaster reporting is not a key feature in journalism courses and the priority given to these stories by young journalists is negligible. At the same time, with no accredited standards, journalism and mass communication courses vary widely in their quality, content and methods. This means that the very fundamentals of ‘good reporting’ in general which are key to good disaster reporting in particular are often skimmed over.

Keeping these problems in mind, the core journalistic norms need to be reiterated and looked at from a disaster context. Basics of disaster-related terminology and concepts need to be taught to help journalists understand the situation and report more accurately.

Targeting the young is important precisely because the seeds of a story are often found on the ground. So change can occur only when there is the will to run these stories at the top level and an ability to recognise and dig out these stories at the ‘on ground’ level.

The module is targeted at entry-level journalists. This includes last-year journalism and mass
communications students; as well as entry-level journalists (first 2-3 years on the job). This will cut across various types of media – print, electronic (radio and TV), online and photo-journalists. Making it a part of the formal learning curriculum will help mainstream these ideas over the long-term. At the same time, reaching out to those young journalists who may or may not have had access to formal journalism will allow for these concepts to germinate in the workplace. This module is expected to use university professors as the core resource persons.

Keeping different learning styles in mind and the need to emphasise thinking, skill development and collaboration rather than hammering facts; the module runs in a simulation mode. The participants are taken through a disaster scenario from beginning to end –with each principle denoting a different action for the journalist along the way. This also helps make the course more practical rather than theoretical; a critical need for such training.

A series of such trainings will help develop a culture of more sensitive, accurate and holistic disaster reporting. In the long run, this will help develop more resilient communities as the public becomes better informed.

Part D – TOT Module for Senior Journalists, PIOs and PROs

The media plays a critical role in informing the public during disasters and in promoting risk reduction behaviour during peace time. However, tight deadlines and the 24-hour news cycle amplify the pressure and the hunger for ‘exclusive’ updates. Images of death, disaster and destruction are powerful. So while journalists, photo-journalists and increasingly citizen journalists are tasked with providing the public with quick and accurate information as it develops; the reality is that it is usually only the dramatic components of disasters that make the front pages. These are overhyped in order to pump up ratings. Reporting has also generally been confined to during and just after a disaster event (response and early recovery). There is little, if any, coverage, of risk reduction aspects during non-disaster times. Part of the limiting factor is the comparative unawareness of people on preventive and mitigative strategies and the linkages to broader stories.

The problem is compounded by media-shy or often media-antagonistic government officials (especially those tasked with formally disseminating information). The fallout of this volatile relationship reflects in the quality and scope of disaster reporting. It often fails to fulfil its potential as a key driver of change.

The module is targeted at mid and senior journalists across all types of media – print, electronic (radio and TV), online and photo-journalists; PIOs and PROs within the NDMA structure and PIOs and PROs from related ministries (particularly education, PRI/ULB, health and rural development). I targets trainees at the national, regional and district levels. It will look specifically at senior people in the bureau management and mid/senior-level reporters. This is essential to bring about actual change; as often juniors on the ground may suggest a story, only to have it shot down by the top brass. Shifts in perception are therefore required here as well.

It also tries to build a more collaborative relationship between journalists and government representatives. Rather than prescribing solutions, the training approach is to facilitate discussion and instigate the thinking process around these issues. It also seeks to promote collaborative relationships between different facets of the media and the government.

As these are senior journalists and government staff, senior government officials will be required to be resource persons. These can be drawn from across the spectrum of concerned ministries. The Master Resource Persons must therefore be senior NIDM/NDMA staff.
Considering the time constraints of senior journalists, PIOs and PROs, the course is proposed as a blended learning one. The participants are given one week to complete the online part of the course that takes them through the basic principles with reading, quizzes and online discussion boards. The two-day face to face workshop focuses on building collaboration with role plays, simulations and a possible agreed way forward.

A series of such trainings will help develop a culture of more sensitive, accurate and holistic disaster reporting. In the long run, this will help develop more resilient communities as the public becomes better informed.

DELIVERABLE 15: White Paper on Capacity Building and Training in DRR for India which should be inclusive of training policy

This white paper on training and capacity building for disaster risk reduction in India was the outcome of a country wide study carried out under Government of India’s National Cyclone Risk Mitigation Project (NCRMP) during 2012-2014.

While the focus of this World Bank supported project is on cyclone risk mitigation, the study goes beyond cyclone to cover earthquake, tsunami, floods, drought and landslides as the major natural hazards in the country. The study does not cover man-made disasters like fires, terrorist attacks, oil spills, disease outbreaks, chemical and industrial disasters, but recognises the fact that the boundaries between natural and mad made disasters have increasingly blurred over the years and this understanding needs to inform all disaster risk reduction (DRR) efforts at different levels.

Implementation Plan for Training

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Activities</th>
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<tbody>
<tr>
<td>0-2 years</td>
<td>• Preparation of a three stage perspective plan.</td>
</tr>
<tr>
<td>2014-15</td>
<td>• Developing and piloting 12 TOT modules covering five major hazards across ten key sectors for three different levels of policy, management and operations.</td>
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<tr>
<td>2015-16</td>
<td>• To develop five hundred fifty four (554) master resource persons (MRP)/master trainers and fifteen thousand two hundred fifty (15,258) trainers for organising direct training programmes for policy, middle and grassroots level functionaries on different aspects of DM and DRR.</td>
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<tr>
<td>2-5 years</td>
<td>• To train eighty lakh (80, 00,000) government and non-government functionaries at the national level in different aspects of disaster management and disaster risk reduction along different stages of the disaster management cycle.</td>
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<tr>
<td>2016-17</td>
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<td>2017-18</td>
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<td>2023-24</td>
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Besides being multi-hazard, the study had also been multi-sector and multi-level in nature. The study looked at four key sectors of local self-government, rural development, education and health and covers national, state, district and sub-district levels. The study considered disaster risk reduction (DRR) and climate change adaptation (CCA) as being mutually
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Agenda of safe and sustainable development at the global level is embodied in Millennium Development Goals (MDGs) and Hyogo Framework for Action (HFA) sets the global agenda for disaster risk reduction. Global climate talks and agreements, though not very conclusive so far, do underline the need to address climate change adaptation (CCA) issues across communities and countries as a matter of development priority. Government of India has its National Climate Action Plan (NCAP) drawn up in 2005.

People, particularly the poor, and their vulnerabilities and capacities constitute the core concern of DRR, CCA and safe and sustainable development. Both institutional and human capacities are required to combat the impact of climate change and to reduce the multiple disaster risks that vulnerable communities carry across more than twenty seven states in India, which are multi-hazard prone.

The study tells that while there is a robust institutional framework at the national and state levels for disaster management, required capacities to ensure effective DRR and CCA at the district and sub-district levels have yet to be developed. The biggest gap is in terms of community capacity and preparedness to deal with disasters, which was found to be largely missing across most of study districts and states. This calls for serious policy attention at the national level. An obvious lack of effort and coordination between state and non-state actors to plan and undertake joint DRR initiatives on the ground emerged as another major concern of the study.

Quality in capacity building processes was one of the areas the study covered, and an accreditation process and suggested approach emerged from it that covers training as well as research and education. Additionally, it looked at public awareness and instruments such as media strategy, training of journalists and toolkits for their functioning as elements critical for overall capacity building in disaster risk reduction. These are covered in this white paper as interconnected elements that relate to training as aligned pillars of a national capacity building approach that is comprehensive, takes a community based approach, and ensures quality in all its aspects.

In view of this backdrop, this white paper seeks to provide a comprehensive national policy framework for training and capacity building for disaster risk reduction in India across sectors.

DELIVERABLE 16: All expected outcomes of organisation / Institutional development as indicated in the scope of study (Review of Institutions, strategy for standardisation & mechanism for setting up of DRR institute along with its capacity building strategy)

Part A – Guidelines for setting up Centres of Excellence

This report was produced as part of Deliverable 16 of the study for preparing long term training and capacity building strategy for disaster risk reduction in India under NCRMP. It was the outcome of a wide range of activities including analysis of existing disaster management institutions and a study of gaps and needs. It was based on an extensive SWOT analysis and on interactions with various concerned stakeholders. A consultative workshop was also organised to brainstorm the concepts with different key stakeholders including government officials, NGO workers, academia and private sector representatives. It presents guidelines towards setting up Centres of Excellence (COE) for quality management approaches for disaster management related research and education.

The report was divided into five chapters. The first chapter gives an overall introduction about the project and the objective of this report. It also presents the activity of the study...
under which this report has been prepared and how this report has added to the project activities.

The second chapter focuses on the concept of COE. It explains the idea, vision and objective of a COE. It also presents the types of COEs and their functions and characteristics. Three types of COEs including academic, technical and advanced technical are discussed here. The major functions of a COE include the following:

1. Advance knowledge and expertise on different aspects of disaster management such as mitigation, preparedness, emergency response and recovery.
2. Enhance communications for effective disaster management on the ground vertically and horizontally.
3. Transfer knowledge across local, state, national and global contexts to create new solutions.
4. Create databases and expertise to be readily used.
5. Identify and document best practices; and develop local resources for their contextualised replication.
6. Develop training modules for all levels and train master trainers.
7. Conduct research that is at the forefront of disaster management in India and create new pathways for further research and applications of the findings.
8. Play the role of an incubator – identifying and nurturing institutions that have the ability to be COEs in long-term.
10. Maintain the standards in training and education by providing certification for quality performance.

The need for Centres of Excellence has been summed up under various categories to identify and measure the gaps in the domain of knowledge, training and services to create actual impact. A set of 12 priority areas have been defined to address issues through COEs in the field of disaster management.

The major gaps in capacity building programmes have been assessed at national, state and regional level. This includes capacity building with area and hazard specific expertise; identification and assessment of local and global risks; documentation and developing research agenda; project and process management; expert guidance and specialised training for disaster management; efficient use of funding for research and training; knowledge sharing and communication; policy research, formulation and accomplishing strategic goals. Market research and funding sources of COEs have also been discussed.

The third chapter gives a step-wise approach of building a COE. The stepwise approach required to build a COE is as follows:

1. Goal design
2. Strategy design
3. Environment
4. Organisational Design
5. Task Design
6. People
7. Leadership
8. Coordination
9. Information Systems
10. Incentives
11. Institutional setup and programme design
12. Certification
13. Quality assurance and accreditation

Taking this approach, a study of current centres and listing of potential centres to be
considered for upgrading to COEs was done. Six centres including National Institute of Disaster Management, SAARC Disaster Management Centre, Disaster Management Centre at Administrative Training Institute, West Bengal, The Centre of Excellence for Disaster Mitigation and Management at IIT Roorkee, Centre for Disaster Mitigation and Management at the VIT University and Gujarat Institute of Disaster Management, were studied and 74 potential centres listed. The potential centres include a mix of existing COEs, existing institutes having the potential to be upgraded to COEs and the creation of new institutes where they are non-existent.

The study also considered international and national good practices and drew lessons from them for the purpose. An approach for potential training modules was drawn from the SWOT and the Strategic Framework for Implementation of Training, prepared earlier in the study.

Structural and process guidelines for establishment of COEs have been drawn in chapter four, considering needs and capacities at national, state and district levels. The structure of the COE is envisioned at national and state level to have an optimised use of local information, data and infrastructural resources. While the national and state levels will provide the leadership, the emergency operation centres at the district level will form the base for linking the expertise with the implementation. The structure looks at functions, geography, hazards and sectoral/thematic areas, and COE design will be carried out in accordance to these criteria. Supporting institutions will need to be linked with, for the purpose of deriving domain expertise as required.

<table>
<thead>
<tr>
<th>NATIONAL INSTITUTE OF DISASTER MANAGEMENT (NIDM) – Overall Coordinator</th>
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<tbody>
<tr>
<td>NATIONAL LEVEL COES</td>
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<tr>
<td>Functional</td>
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<tr>
<td>STATE LEVEL COES</td>
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<tr>
<td>Zone / area</td>
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<tr>
<td>Hazard</td>
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<tr>
<td>Thematic</td>
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<tr>
<td>State Level Centres for Disaster Management (Providing basic research and serving as dissemination points)</td>
</tr>
<tr>
<td>District Level Emergency Operations Centres (Providing ground inputs and documentation during peace time)</td>
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</table>

For the purpose of quality assurance, it is proposed to have benchmarks laid down for being recognised as a COE and to remain one. An accreditation process linked to the accreditation strategy developed under the study is proposed as a governing principle for COEs also.
The overall implementation roadmap will thus include earning the title, working in a decentralised but networked environment, exploring public private partnership mode for resource mobilisation, and an outcome based approach for quality management.

The fifth chapter includes the roadmap for implementation of centres of excellence. It includes the key steps for implementation process, ways of working of the centres, and the research strategy and links to academic networks.

This report presents the framework for developing centres of excellence in India in the field of disaster management. It will act as an important tool to guide for decision making and development of COEs in India.

### Part B – Review of Institutions, Strategy for Standardisation & Mechanism for setting up of DRR Institute along with its Capacity Building Strategy

This report on Review of Institutions, Strategy for Standardisation & Mechanism for setting up of DRR Institute along with its Capacity Building Strategy was part of the deliverables of the Long Term Training and Capacity Building Strategy for Disaster Risk Reduction in India, being carried out under the National Cyclone Risk Mitigation Project of Government of India.

As a starting point it notes that an institutional system was already in place in India before the enactment of the Disaster Management Act, 2005. At national level, it consisted of Cabinet Committee on Natural Calamities for natural disasters and Cabinet Committee on Security for human induced disasters having security implications. It also consisted of a National Crisis Management Committee headed by Cabinet Secretary with Secretaries of concerned Ministries and Departments as Members to ensure effective coordination and implementation of response and relief measures in the wake of disasters. Besides, there is a Crises Management Group under the Central Relief Commissioner with nodal officers of relevant Ministries and Departments as Members.

These institutional mechanisms have not been disturbed and continue to be functional even now, except the Cabinet Committee on Natural Calamities which has been discontinued recently. However, these institutional systems were basically response-oriented and did not have any legislative back up. Therefore, it was felt, after tsunami disaster as also based on the recommendations of High Powered Committee on Disaster Management, to establish a new set of institutional mechanism to take care of pre-disaster aspects and look at the entire matter in a holistic manner. It was in this background that the Disaster Management Act was enacted and institutions like NDMA, NEC, SDMAs, SECs and DDMAs were established, besides NDRF and NIDM.

The evaluation of various institutions in force, before and after enactment of the Disaster Management Act, 2005 have been viewed under the following themes:

- Identification of legal and institutional gaps in the existing system. Based on the experience gathered since the enactment of the Act, a view of amendments to be carried out in the DM Act, 2005 is also taken for consideration of the Government. Further, the recommendations made by the Task Force to review the Disaster Management Act, 2005 are also studied.
- Analysis of the National Disaster Management Framework and the National Policy on Disaster Management; identifying gaps therein with measures required to be taken to cover these gaps.
- Synergy and adequacy of existing institutional and organisational framework to ensure there is convergence among various institutional systems put in place so that the entire network of institutions can work together as a cohesive unit and optimise outputs.
- Functioning of NDMA and NEC, in the background of functions assigned to each and
looking at a future roadmap for each; also considering the recommendations made by the Task Force and to find amicable but useful options.

- Institutional systems put in place at state, district and local level in terms of the DM Act and covers State Disaster Management Authorities, State Executive Committees, District Disaster Management Authorities and role of local authorities. Models for SDMAs, functioning and structure of SDMAs and SECs, need for dedicated secretariat for SDMAs, SECs, DDMAs and re-defining the role of local authorities to enable them to discharge the functions assigned to it under the Act.

- National Institute of Disaster Management, its challenges in discharging the functions assigned to it, the bottlenecks, too much stress on training and de-motivation and frustration of faculty members. Criteria for a future roadmap for NIDM, the proposed structure etc to cover the gaps visible at present.

For the purpose of the study, identification of legal and institutional gaps has been looked at in the national as well as global perspectives. Keeping in view the paradigm shift from response to preparedness oriented approach, a National Roadmap has been conceived covering institutional mechanism; legal and policy framework; disaster prevention strategy; early warning systems; disaster mitigation, preparedness and response; National Network of Emergency Operation Centers; human resource development; and research and knowledge management. The expected inputs, areas of intervention and agencies to be involved at national, state and district levels were also identified and listed in the national roadmap. The High Powered Committee on Disaster Management Plans played a key role in the entire process.

The Disaster Management Act, 2005 was enacted on 23rd December 2005. The legislation was made under Entry 23 (Social Security and Social Insurance) in the Concurrent List of the Constitution of India. This provides the advantage of permitting the States to have their own legislation on disaster management since it is not feasible for a national Act to take care of all micro level considerations which need to have legislative back up. Besides, in a federal system where state governments draw their mandate directly under the Constitution of India like the national government, it would be appropriate to allow them to legislate to address their own concerns; more so when in the federal set up of India, the basic responsibility for undertaking rescue, relief and rehabilitation measures in the event of natural disasters is that of the State Government concerned. The role of the Central Government is supportive, in terms of physical and financial resources and complementary measures in sectors such as transport, warning and inter-state movement of food grains and other relief materials/ resources.

With the experience of about eight years since the enactment of the Disaster Management Act, 2005, a review of Act has become necessary to take care of apparent inconsistencies or inadequacies. Keeping this in view, the Government of India constituted a Task Force to undertake the review. The Task Force has since submitted its report to the government. The report of the Task Force is now in public domain. The legal gaps identified in this document are based on study of the Act, experience of the consultants and interaction with state governments and other stakeholders during field visits to six states, independent of the report of the Task Force. Institutions have been reviewed at the national, state, district and local levels. Parallel review processes have also been considered and included.

The structure of the National Disaster Management Authority, as well as the State and District Authorities, State Plans and the overall policy framework all indicate a robust structure that is yet to fully achieve its potential and deliver the desired outputs.

Some of the key findings are as follows:

- The National Policy on Disaster Management is a very comprehensive document
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- It takes into consideration the concerns articulated in the Report of the High Powered Committee on Disaster Management and the National Roadmap as also statutory provisions contained in the DM Act, 2005.
- Besides, it also stresses on the emerging concerns like unplanned urbanization, population explosion and climate change which are intricately linked to future disasters.
- The main thrust is to integrate these measures with the development planning and various development programmes under implementation or which may be undertaken in future to ensure inclusive and sustainable development.
- Although it was the statutory responsibility of NEC, SECs and DDMAs to coordinate and monitor implementation of National Policy but none of these institutional bodies have taken any action in this regard.
- There is need to put in place a vibrant and functioning mechanism to coordinate and monitor implementation of National Policy.
- The state governments may lay down their own policies based on their respective vulnerabilities and consistent with the National Policy.
- NIDM needs to be adequately strengthened. It is at present focused on organizing training programmes only and its other functions as laid down in the Act are getting relegated.
- NIDM is not merely a training institute. It has to perform several other functions also such as research and education, documentation, development of national level information base, extending professional and policy support to Central and State Governments and State Training Institutes etc.
- The institute should concentrate on training of policy makers and Master Resource Persons/ Trainers. It is not necessary for them to organise a large number of training programmes.
- It should extend support to State level training institutes/centres by developing trainers and training modules. As the apex level institute, it should focus on quality and not quantity of training programmes in terms of numbers.
- It should also extend support to State level training institutes to develop State Training and Capacity Development Policy, Training Infrastructure, training modules for all stakeholders, Documentation of past disasters and development of case studies and process for selection of participants.
- IIPA should develop adequate faculty for imparting advanced training in DRR and CCA and its integration with various development programmes being implemented by Central and State Governments.
- Besides, it would also be desirable to include a capsule on DRR and CCA in all training programmes being organized by IIPA.
- LBSNAA, through its Center for Disaster Management, may diversify to include DRR and CCA as also its integration with development programmes being implemented in the country, besides running specific training modules under ICS for response.
- State Governments need to take accelerated action to establish their respective State Disaster Response Forces (SDRFs), dispersed in all districts. The rapid response teams of SDRFs can be trained by NDRF and they can supplement the training programmes in the state on the lines of training programmes being carried out by NDRF.
- Although 31 DM Centres have been established in States and additional 11 Centres

encompassing all phases of disaster management.
are in the process of being set up and despite the fact that most of the DM Centres have been functional for more than one and half decades, the performance of the Centres, except few, has left much to be desired.  

- The faculty mostly is not in position; training programmes being organised are invariably supply-driven and not demand-driven; training needs analysis has not been carried out; focused training modules have mostly not been developed; and the state governments have not assumed ownership of the DM Centres in real sense of the term.

Besides these, detailed observations and recommendations are made in the report, which may be considered by Government of India for overall legal and institutional approach and structuring, with a specific aim of long term training and capacity building for disaster risk reduction in the country.
SUMMARY OF EVENTS UNDER THE PROJECT

Event 1: Workshop for launching the project

The project initiation was presented at a National Workshop of NCRMP at Bhubaneswar, Odisha on 13 March 2013, as a special session under the larger event organised as an overall review workshop of NCRMP. The study team including the Project Coordinator and Consultants presented the study framework, methodology, field survey plan, deliverable plan and other details as conceived under the inception planning process. The presiding panel included NDMA members, Honorable Agriculture Minister of Odisha, senior officials of Odisha State Disaster Management Authority, Disaster Management Department of Odisha, various concerned ministries and departments, and key officials from other NCRMP states. The presentation was well received and broad suggestions were made by participants for ensuring alignment with other NCRMP activities such as construction of cyclone shelters and infrastructure facilities that can also gain from training and capacity building support.

Event 2: Workshop on accreditation process and quality management for DM trainings

A consultative workshop was held at NIDM on 03 October 2013 to finalise the report on accreditation process and quality management. The aim of the workshop was to facilitate discussions to get useful comments and feedback, updated facts and information from key professionals in the sector to validate the issues included in the project and to raise other relevant issues worth mentioning in the strategy for the training policy.

The workshop focussed on the following thematic areas:

- Training need analysis
- Training gap analysis
- Quantification and prioritisation of training needs
- Strategic framework for implementation of training policy

The workshop was carried out in three sessions.
First session focused on the SWOT analysis. It highlighted the extent of the field data, key informant data, and literature review outputs used for arriving at the SWOT analysis. The aspects of Training Needs Analysis, Training Gap Analysis, Quantification and Prioritisation of Training Needs were also presented. During the session various topics were discussed covering various approaches for training that need to be followed, training gaps, encouraging disaster risk reduction, sustainability of DRR in various sectors, developing education in DRR and awareness creation for DRR at various scales.

The second session discussed strategic framework for implementation of training. It highlighted the challenges related to making training a systematic exercise, shifting from supply to demand driven, linking training to a larger goal, and seeing training as a means and not an end. It presented key elements of the strategy, including goals, institutional arrangements, and systems. A perspective plan was also presented, with three levels ranging from short-term of 0 to 2 years to a long term plan of 5 to 10 years. Twelve prioritised training themes, a conceptual framework and operational framework were also presented.

The third session focussed on accreditation, quality management and certification of short term trainings. The session defined accreditation and shared the activities that have resulted in the study findings. It highlighted the breadth of the training institutions and programmes, including the strengths of the training system. It raised the key points under concerns in quality accreditation and certification. It shared how the thinking started from the National Training Policy and accreditation system. It shared the approach and strategy as based on the current initiatives in India, and discussed the multi-tiered approach, looking at institutions, faculty and programmes. It covered the quality management tools, accreditation process and criteria, and the certification process. Under the recommendations the presentation shared five options, suggesting strengths of the option of having an independent council for accreditation purposes, and an aligned certification system with required strengths.

**Event 3: Pilot Testing of TOT Module at NIDM**

A workshop for Pilot TOT on Re-examining Principles of Disaster Reporting and Consultative Workshop on Public Awareness Deliverables was held at NIDM from 17-21 February 2014. The aim of the pilot TOT and consultation workshop was to develop the ability of Master Resource Persons to impart training on disaster reporting; impacting the resilience of communities in the long-run.

The workshop included the following:

- Apply the fundamentals of disaster reporting to future work in disaster scenarios.
- Create programming/articles that focus on broader developmental and environmental issues that affect disaster risk reduction; even during non-disaster times.
- Assess critical issues of vulnerability, development and environment that impact disasters
- Facilitate collaborative relationships among various types of media and government officials to improve reporting.
- Formulate better working relationships between various stakeholders.
- Facilitate some basic broad consensus points on disaster reporting.
- Select and adapt training material to suit the trainee group.
Event 4: Workshop for finalisation of accreditation process of technical courses

For finalisation of the report on suggestions for accreditation process and its policy for DM technical courses at graduate and postgraduate level through a consultative workshop was held at NIDM on 05 February 2014. The workshop aimed at facilitating discussions to share the findings on Accreditation Process and its Policy for DM Technical Courses at Graduate and Postgraduate Level, and the approach of the training modules being prepared under the study from key professionals in the sector and to get useful comments and feedback from them.

The workshop focussed on the following thematic areas:
- Training and TOT modules
- Accreditation Process and its Policy for DM Technical Courses at Graduate and Postgraduate Level
- Exploring linkages in different components of the study

The workshop was divided into two sessions. The first session focussed on training component and training modules. It highlighted the brief structure of TOT modules and presented the overall aim of creating Master Resource Persons at national and state levels. The different themes covered in the TOT modules were explained along with the structure adopted for training. The target audience and the universe to be addressed were also presented in brief. The training and performance objectives of modules were presented in detail, which portrayed performance, training and enabling objectives of all themes of the modules. The Learning Units in the modules were explained to give an overall insight of the modules and ask for participants suggestions to improve it further.

The second session highlighted the areas of the Capacity Building Study in detail for accreditation process, quality management and certification method of disaster management trainings, research and education and technical education at undergraduate and postgraduate levels. It presented the strengths of the disaster management education system and concerns in quality accreditation and certification. Good practices in training, accreditation and quality management was presented and approach and strategy for accreditation process and quality management was explained. The accreditation criteria, certification process, options for accreditation body and way forward for certification was also presented in detail. Status of international and national DM research and education was presented along with a roadmap for research and knowledge management. Based on this and SWOT summary of the study, findings and recommendation of DM research and education were presented. The overall presentation portrayed the framework for accreditation process, certification principles and implementation approach for disaster management education.

Event 5: Workshop with policy makers on White Paper

The consultation workshop on key policy issues to be included in White Paper on capacity building and training on DRR in India under the study “Preparing Long Term Training and Capacity Building Strategy for Disaster Risk Reduction” under National Cyclone Risk Mitigation Project (NCRMP) was held on 23 December, 2013 at Operation’s Room, NDMA Bhawan, New Delhi. The workshop followed a meeting of the Central Review Committee wherein an overall review of the project status had been carried out.
The approach and structure of the White paper on Capacity Building and Training on DRR in India was discussed in detail. The discussion included three sessions as follows:

- Capacity Building Study framework and Accreditation
- Strategic Framework for Implementation of Training
- Organisational and Institutional Framework

**Event 6: Workshop on Centres of Excellence on DRR and CCA – Evolving a Roadmap**

The workshop on evolving a Roadmap for Centres of Excellence for DRR and CCA in India was organised by Indian Institute of Public Administration (IIPA), SEEDS Technical Services and Knowledge Links at IIPA, New Delhi on 22 November 2014. The workshop deliberated with experts the concept of Centres of Excellence, towards evolving national guidelines for setting up a network of such centres in India. It brought together experts in disaster management, senior trainers, government officials, academics and professionals to discuss a roadmap for creating centres of excellence. The conversation revolved around key questions of what a COE is, where they should be, what they should do and what the most practical approach could be to ensure that these are made functional.
Event 7: State Level Workshop

A high level state level consultation workshop was organised at Kolkata on 27 February 2014 at the Department of Disaster Management, West Bengal Government. The workshop was chaired by Janab Javed Ahmed Khan, Honorable Minister in Charge of Department of Disaster Management, Fire & Emergency Services and Civil Defence. Mr. Indivar Pandey, Principal Secretary and Mr. Amit Chaudhuri, Joint Secretary, Department of Disaster Management hosted and facilitated the workshop, that was well attended by senior officials of concerned ministries and departments, civil society organisations, UN and media persons. The NCRMP CB Study Project Coordinator and Consultants presented the study outcomes and a discussion was held on the state level application of the findings, the methodologies, and the various tools being developed under the project. There was very significant interest in the training modules being prepared under the study, and public awareness that is very relevant to the states, particularly in remote areas and those areas that are poor and extremely vulnerable to hazards. The aspects of addressing the education sector were discussed in detail. Broad recommendations were made on illustrating the project deliverables with case specific content that is relevant to states. It was also suggested that the Human Resource Plan being developed as a model carry some illustrations on state level application.
An extra TOT on Re-examining Principles of Disaster Reporting was held at NIDM from 24 - 26 September, 2014. The TOT brought together PIOs and PROs from different departments and journalists from over seven states. A key highlight was the running of a core session by Dr. Sachin Batra, a trainee from the first pilot TOT; completing the cycle and introducing a second generation of media specialists on disaster reporting!

The workshop included the following:

- Apply the fundamentals of disaster reporting – ‘the A-F & S’ of reporting across the disaster cycle - to future work in disaster scenarios.
- Create programming/ articles that focus on broader developmental and environmental issues that affect disaster risk reduction; even during non-disaster times.
- Facilitate collaborative relationships among various types of media and government officials to improve reporting.
- Facilitate some basic broad consensus points on disaster reporting.
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