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**Highlights**

2<sup>nd</sup> India Disaster Management Congress Scheduled from 4-6 November

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**Guerrilla Rainfall**

India has been facing the threats of flood every year. On an average one fifth of 40 million hectares of land area of the country that are prone to flood are inundated every year, causing colossal damage to life, livelihood and property. It is estimated that close to 1500 lives are lost every year due to flood and about 1.4 million houses are damaged due to heavy rainfall, flood and flash floods. This is a recurring phenomenon in many States, districts, blocks and villages which hardly recover from one flood when another engulfs them, resulting in untold miseries of the people, particularly poor villagers who are caught in a vicious cycle of disaster and poverty.

One disturbing phenomenon in the recent years is the uneven distribution of rainfall. There is hardly any precipitation in the crucial months when moisture is badly required for sowing and growth of crop, but suddenly there are torrential downpours, which instead of providing any relief to the farmers adds to their further miseries. The simultaneous attack of drought and flood in the same areas and in the same season is a new phenomenon which is being attributed to climate change, but lot many evidences are required before any conclusions can be drawn. However when large areas of peninsular India which had never seen flood before are affected by unprecedented rain causing floods of unknown nature, the unpredictability of rainfall too little or too much have come to the fore as never before. Surely this requires serious research by the meteorologists to determine the nature of what is being described as 'guerrilla rainfall'. The countermeasure for this phenomenon by way of a reliable early and medium range forecasts must be in place and adaptive capacity of our agricultural system must be developed to protect the interests of our farmers from the vagaries of nature.

The impact of such rainfall in our over congested urban areas could even more serious as the increasing incidents of urban floods in the recent years would demonstrate. City drainage systems developed on the basis of rainfall data of past hundred years have gone haywire due to continuous rainfall that have broken all records. The single day rainfall of 27 July in Mumbai, for example, had surpassed the highest recorded rainfall for the whole year resulting in flood of unprecedented nature. The probability of risks of such flood are real in many urban areas. The plans for mitigation and preparedness for facing such urban guerrilla floods must also be developed to protect lives and assets in our cities.


**P.G.Dhar Chakrabarti**

## A Disastrous Quarter

July to September 2009

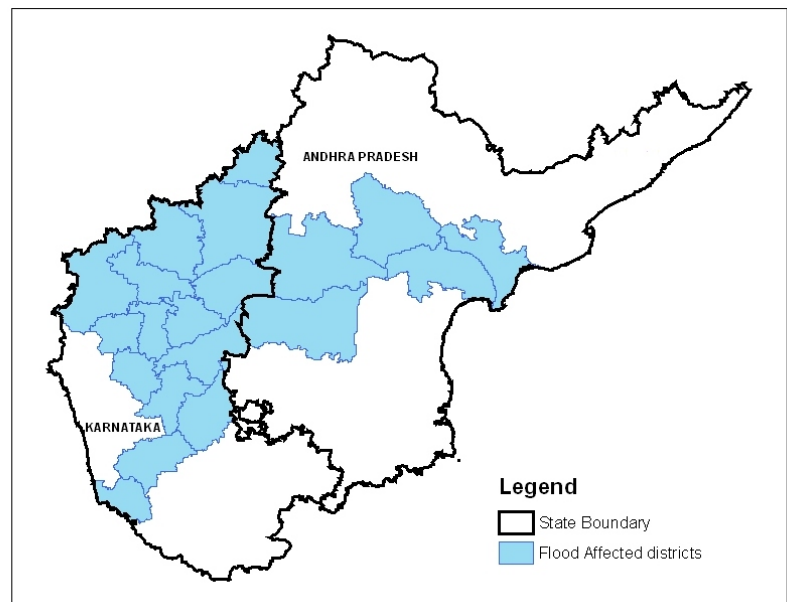
The quarter ending September 2009 witnessed varieties of natural disasters in India. Large part of India was reeling under drought, which was the worst ever after 2002. The deficiency of rainfall in June continued throughout July affecting sowing of Kharif crop in north, north east, central, west and parts of southern India. Although rainfall improved in August, agricultural operations were already affected in wide areas. As on 30th September as many as 12 State Governments declared drought in 300 districts which affected nearly 250 million farmers. Heavy downpours in September, on the other hand, resulted in floods in some parts of the country. Ironically many States that suffered drought also faced flood. 129 district and 12201 villages were badly affected killing 1184 humans and 6473 cattle besides damaging 84227 houses.

## South India Floods

September 2009

The Floods in Karnataka and Andhra Pradesh of 2009 were not the usual floods, in this part of the country and that too following a period of drought like situation, which took the public and administration unaware and unprepared. It was reported to be one of the worst in 100 years, death toll rising to 400 in 21 districts of the two states, some of which are generally drought prone. Details are available in table 1 and 2 and the district affected are shown in map 1. Devarahipparagi in Bijapur district received 143 mm in 24 hours on 1st October 2009 which was the highest rainfall in a day during the past 100 years.

Gabbur in Deodurg taluk of Raichur district received 377 mm on 2nd October 2009 which is the highest rainfall received in 24 hours in the past 100 years. Hungund in Bagalkote district recorded 163 mm rainfall in 24 hours on 2nd October 2009 which is the 2nd highest rainfall recorded in a day in the past 100 years. Soundatti in Belgaum district recorded 156 mm rainfall in 24 hours on 1st October 2009, being the highest rainfall in a day in the last 100 years. Karwar in Uttara Kannada district received 433 mm in 24 hours on 3rd October 2009 which was the 3rd highest rainfall in a day in the last 100 years. The total rainfall during 28th September to 3rd October was 541mm at Gabbur in Deodurg taluk, 500mm at Kallur in Manvi taluk, 515mm at Kalmali in Raichur taluk, 417mm to 500mm in Hoblis of Sindanur taluk. About 70% of the normal annual rainfall was received in just 5 days during 29th September to 3rd October 2009 in these areas.



Map 1 depicting the flood affected districts



Table:1 Extent of damage and Relief Operations undertaken by the Andhra Pradesh Government

No. and names of severely districts affected	05 districts: Kumool, Krishna, Guntur, Nalgonda and Mahaboobnagar
Number of villages affected	571
Population affected	18.93 lakh
Number of human deaths	73
Number of cattle perished	27340
Number of houses damaged	179040
Number of relief camps opened	154
Number of persons accommodated in the relief camps	1.72 lakh
Number of persons evacuated	5.89 lakh
Number of boats deployed	72
Number of swimmers deployed	185
Number of food packets distributed	32.32 lakh
Number of water sachets distributed	48.97 lakh
Number of medical camps opened	307

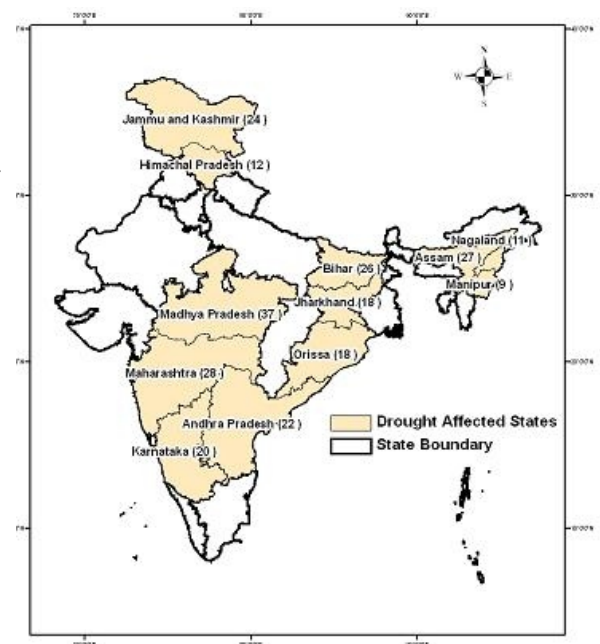
Table:2 Extent of damage and Relief Operations undertaken by the Karnataka Government

No. and names of severely affected districts	16 districts : Belgaum, Gulbarga, Bijapur, Raichur, Dharwad, Bagalkot, Bellary, Koppal, Haveri, Bidar, Gadag, Davanagere, Karwar, Dakshina Kannada, Chikaballapura and Chitradurga
Number of villages affected	4292
Number of human deaths	227
Number of cattle perished	7882
Number of houses damaged	5.26 lakh
Crop area affected (in ha)	11.34 lakh
Number of relief camps opened	1722
Number of persons accommodated in the relief camps	6.92 lakh
Number of persons rescued	5197
Number of food packets airdropped	20,00,000
Number of boats deployed (district boats)	329

## Drought 2009

Precipitation, in India occurs in a short season in most parts, and if it does not occur, such regions have to live with water scarcity till the next year. The southwest monsoon sheds moisture as it travels northwards. So drought invariably hits the north and north west most. The weak monsoon of 2009 has slowed down the pace of sowing of many important crops. Farmers were keeping their fingers crossed. The country experienced driest June in 83 years. As per the Ministry of Agriculture's (Dept of Agriculture & Cooperation) latest analysis of the scenario, although the onset of South-West Monsoon, 2009 (June-September) was in time, the advancement of monsoon was delayed in Central and Northern parts of the country resulting in delay in advancement of monsoon in other parts of the country. It was deficient by 39% on 10th June, and 54% on 24<sup>th</sup> June, (of long period average (LPA)), which has resulted in drought like condition in some parts of the country.

At the end of July, 2009 the rainfall was normal by -19%. However the cumulative rainfall from 1<sup>st</sup> June to 30<sup>th</sup> September, 2009 was



Map 2 showing Drought affected states 2009

deficient by 23%. The August, 2009 was also a deficient month with negative departure of about -27%. As on 30<sup>th</sup> September, 2009 the various states have declared drought in their respective states, in all 299 districts. Drought affected states with number of affected districts are shown in map 2..

The overall drop in paddy area is 26% till July end. The Government of India decided to keep subsidizing diesel sale till September 30, in drought hit districts to help farmers to pump enough groundwater, which is the only alternative water resource during drought. The Ministry of Agriculture even went on to say that the farmers no longer ask for food grain but demand more electricity to pump groundwater. Subdued rains caused about 50% loss of paddy crop coverage in India, since 65% agriculture is still rain fed. Severity of problem and government's efforts towards minimizing the related losses and troubles was the focus of Hon'ble Prime Minister's Independence Day speech. Despite Governments efforts, significant economic loss is anticipated during the year due to loss in Kharif crop, as per Prof. M.S.Swaminathan, eminent agriculture scientist.

## NIDM and DMC-Uttarakhand Academy Experts Visited the landslide Prone areas of Pittoragarh August 2009

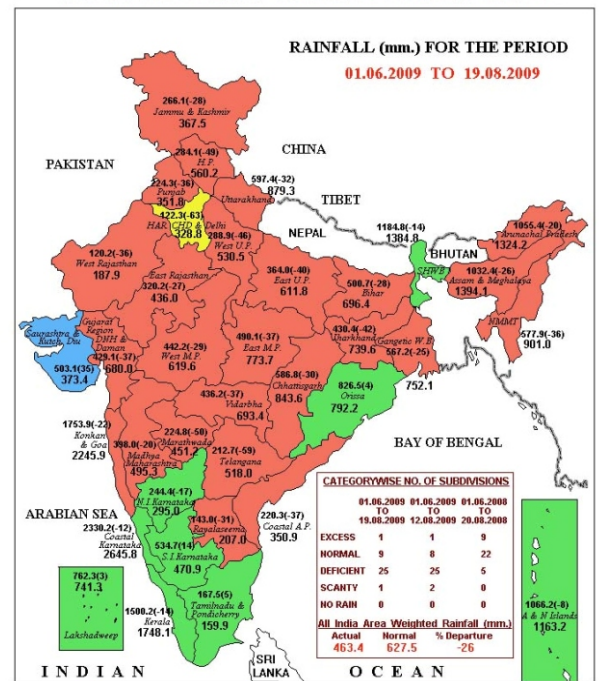
A team of experts from NIDM and Disaster Management Centre, Uttarakhand Academy of Administration and Management visited the affected areas to document the devastating landslide in the Pittoragarh district of Uttarakhand. Forty three people were killed in the landslide triggered by heavy rains on 8th August 2009. Three villages viz. Chachna, Lah and Rumiadola were swept away in the landslide following heavy rains in Munshiyari block. The affected area is 90 km from District Head Quarter, Pithoragarh. The chronology of events and the details of damages were documented by the field team. In Jhekela alone the toll was 12, where as in Laa Village 26 people have died. In village Rumidola, 05 people have died. The Team after interacting with the administration and villagers has suggested some measures for averting and minimizing the impact of such events in future.

## 2<sup>nd</sup> India Disaster Management Congress Scheduled form 4-6 November 2009

New Delhi, November 2009

NIDM is organizing the Second India Disaster Management Congress in New Delhi from 4-6 November, 2009. The Congress shall be held in Vigyan Bhavan, New Delhi and a total of 26 Technical Sessions are proposed to be organized in around 13 Thematic Clusters. The Second India Disaster Management Congress is expected to bring together 1500 scientists, scholars and practitioners working on different aspects of disaster risk reduction and management across the world. Thematic clusters/ sessions of the Congress will cover various natural hazards of geological, hydro-meteorological and biological origin like earthquake, landslides, floods, drought, cyclone, epidemics and pandemics

## भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



Village Jhekela

and human induced disasters like Industrial and chemical disasters, NBC disasters, accidents etc. Besides, various socio economic and cross cutting issues like gender, psychosocial, microfinance, urban risk management, disaster recovery, science and technology applications etc will also be discussed.

**The following are the thematic clusters and sessions**



- Geological Disasters : Earthquake, Landslide & Avalanches
- Hydro Meteorological Disasters : Cyclone, Drought and Floods
- Man Made Disasters : Industrial & Chemical Disasters, Nuclear Emergencies and Road Accidents
- Science and Technology : Geoinformation Systems and Early Warning and Disaster Communication
- Social and Economic Issues: Gender and Disaster, Children and Disaster, Financing Disaster Management
- Disaster, Development and Governance: Mainstreaming Disaster Risk Reduction in Development, Involvement of communities, civil society and NGOs in disaster management
- Education, Training and Capacity Building
- Disaster Response: Role of Armed Forces, NDRF, Police & Civil Defence and Incident Command System
- Emergency Health Management :Public Health Emergencies, Mass Casualty Management, Psycho-Social Care, Pandemics

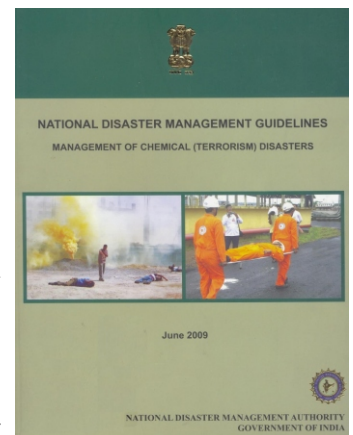
- Emerging Issues and Concerns: Climate Change, Urban Risk Management
- Corporate Sector in Disaster Management
- Media and Disaster Management
- Post Disaster Recovery and Reconstruction: International Experiences and Best Practices

Details of the conference are available at the website [www.nidm.gov.in/idmc2](http://www.nidm.gov.in/idmc2).

**NEW RELEASES**

**Guidelines for the Management of Chemical Terrorism released**

The Hon'ble Minister of Defence Shri A.K.Antony released the National Disaster Management Guidelines on Management of Chemical (Terrorism) Disaster on 4th August 2009 at NDMA Bhawan, New Delhi. The guidelines have been prepared by the National Disaster Management Authority with the help of large number of experts and scientists from various Ministries, Departments, Intelligence Agencies, Medical Professionals, NGOs, INGOs, Universities and Community. The Guidelines focus on various aspects of prevention, protection, detection and decontamination of chemical agents and the parameters for Mitigation and Preparedness along with setting a roadmap for emergency response at the site of incident. This also includes medical management of the casualties, both at the site of disaster and the earmarked hospitals. They also lay stress on the role of disaster management authorities at the national, state and district levels. A time bound implementation plan applicable in a phased manner has also been included in the Guidelines. These Guidelines will also serve as a valuable reference document for all stake holders including the private sector. It is envisaged that if timely and proper action by the concerned departments, as per the Guidelines, is carried out, then the country will be well prepared to face any eventuality related to chemical (terrorism) disasters, at a very short notice. Success of these Guidelines will depend on the preparation of plans and their implementation by all stake holders backed by adequate fund for carrying out various developmental and infrastructure plans, especially in various hospitals of the country.



# Disaster Risk Reduction for Safe Development : A Study of Corporate Practices in India

September 2009

A book on **Disaster Risk Reduction for Safe Development: A Study of Corporate Practices in India** and a report on the Business Continuity Survey, 2009 were released on 12 September 2009 by Shri Mullappally Ramachandran, Hon'ble Minister of State for Home Affairs. While releasing these books the Minister stated that these publications would be important source of knowledge for practitioners, professionals and students of disaster management and corporate affairs and congratulated NIDM and the BCM India for bringing out these two important publications. He further highlighted the role played by private sector in disaster management in our country, so far by responding to the need through financial aid and by helping in reconstruction and livelihood issues. He stressed that Government of India is committed for creating a congenial environment for partnership with the private sector through legal, institutional developmental and fiscal and other policy initiatives. The function was attended by Gen. N.C.Vij, Vice Chairperson, NDMA, Dr. Amit Mitra, Secretary General, FICCI among others. This is an effort to document the initiatives taken by the corporate sector in building community resilience through its CSR practices, initiatives to develop its own resilience through business continuity planning and real-time events in public-private partnership. NIDM with the support of UNISDR completed the study which shows that Corporate Sector has come forward in proactive and innovative ways to assist the nation in times of disasters and enhancing community capacity.

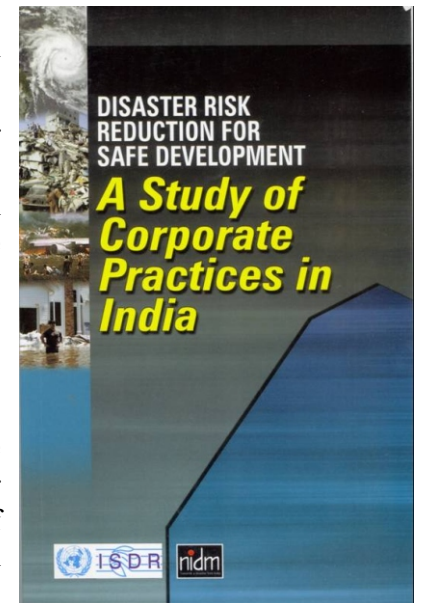


Shri Mullappally Ramachandran Hon'ble Minister of State for Home Affairs releasing the book

The study aims to understand more comprehensively the role of corporate sector in disaster risk reduction. For the purpose of this study two extensive questionnaires were prepared on Corporate Social Responsibility (CSR) and Business Continuity Planning (BCP) respectively. These two questionnaires were given to various sectors of industry and services to have an estimation of how things are shaping in reality. For Public Private Partnership this study provides three case studies which can be seen as examples of good practices. The data for the case studies are all primary sources and the "people in action" have provided the insights into the functioning of the whole mechanism.

## India Business Continuity Survey, 2009

Business Continuity Management (BCM) is an emerging field in India. The Business Continuity survey, 2009 gives an insight into BCM practices in 130 organizations which have possibly some of the most progressive BCM programs in India. The objective of the survey was to study Business Continuity Management and Disaster Recovery trends in India and to assess corporate preparedness as well as levels of maturity. The investigation included Quantum of business disruptions, presence and robustness of a business continuity plan and concerns and preparedness for the future.



## Regional ERRP Conference

New Delhi, July 2009

A regional conference was organized in India International Centre, New Delhi between 29-30 July 2009 to discuss South Asia Earthquake Risk Reduction Project being implemented by the UNDP with assistance from the Government of Japan. The conference was organised in collaboration with the Asian Disaster Reduction Centre (ADRC) International Recovery Platform (IRP) Kobe Japan, National Disaster Management Authority and SAARC Disaster Management Centre.

The main objectives of the conference were to

- Conceptualize the larger framework of earthquake risk mitigation through an exchange of information and review of issues pertaining to South Asia region;
- Review and identify EQ risk reduction approaches and techniques that are applicable and viable in the regional context;
- Establish a network of stakeholders to facilitate regional technical assistance.

The Executive Director of NIDM spoke in the Inaugural Session and was the main speaker in the Thematic Session on South-South Cooperation.

## **NIDM in International Forum**

- ED NIDM attended ISDR Education & Training Institute opening event in Incheon on ED NIDM attended ISDR Education & Training Institute opening event and was a Guest Speaker at the inaugural session of the first training programme. During the visit to Incheon, Republic of Korea from 11-14 August 2009. He has attended the Conference on Building a Local Alliance for DRR and ISDR Asia Partner Ship meeting as well 2009. He was also Guest Speaker at the inaugural session of the first training programme, he spoke on the Current Status of International Disaster Risk Management.
- Chandrani B. Neogi Assistant Professor attended a pilot training programme on Urban Risk Reduction held at Incheon, Republic of Korea from September 14-25, 2009.
- Dr. Sujata Satpathy Assistant Professor, participated in the professional development training in University college of London (UCL), UK in the Department of Civil Environment & Geomatic Engineering from 28th September to 21st December, 2009.
- Dr. R.K.Mall participated in the write shop on 'Assessing Local Adaptation strategies to climate induced water stress and hazards in the Greater Himalayan Region' 2-8 August, 2009, Kathmadu, Nepal

## **Major Activities of NIDM (July - September 2009)**

### **Training Programmes**

- Basic Course on Disaster Management for Civil Defence Officers, NIDM, 6-10 July
- Climate Change and Disasters, SKIPA, ATI Jharkhand, Ranchi, 6-10 July
- Urban Risk Mitigation and Management, HCMRIPA, ATI Rajasthan, 13-17 July
- Environment and Disasters, NIDM, 13-17 July
- Applications of GIS and Remote Sensing in Disaster Management, HIPA, ATI Haryana, 20-24 July
- Disasters and Disabilities, NIDM, 20-24 July
- Cyclone Risk Mitigation and Management, 20-24 July
- Drought Mitigation and Management, 27-31 July
- Mass Casualty Management, NIDM, 3-7 August
- Early Warning of Disasters, 17-21 August, NIDM
- Role of GIS and Remote Sensing in Disaster Management, NIDM, 17-21 August
- Building Codes and Design for Disaster Safe Built Environment, ATI, J&K, 24-28 August
- Risk Insurance and Risk Transfer, NIDM, 24-28 August
- Training of Trainers on Community Based Disaster Risk Management, 31 August-4 September
- Formulation of District Disaster Management Plan, SIPARD, ATI Tripura, 31 August-4 September
- Chemical, Biological, Radiological and Nuclear (CBRN) Disasters, 7-11 September
- Cyclone Risk Mitigation and Management, ATI Meghalaya, 7-11 September
- Environment and Disasters, NIDM, 14-18 September
- Building Codes and Design for Disaster Safe Built Environment, ATI Nagaland, 14-18 September
- Long-term Recovery and Reconstruction Strategies, 23-25 September
- Comprehensive Landslide Risk Mitigation and Management, ILDM, Kerala, 22-25 September
- Role of Police in Disaster Management, NIDM 29 Sept.- 1 Oct
- Early Recovery Strategies, NIDM, 29.- 30 September

## Online Training Programme with WBI

- Damage & Reconstruction Needs Assessment, 10 August - 6 September 2009
- Climate Change & Disaster Management, First Course: 14 September - 11 October 2009

## Upcoming Events (October - December 2009)

- Climate Change and Disasters, GIDM Gujarat, 6-9 October
- Earthquake Risk Mitigation and Management, ATI Himachal Pradesh, 12-16 October
- Comprehensive Landslide Risk Mitigation and Management, NIDM, 12-16 October
- Formulation of District Disaster Management Plan, ATI Arunachal Pradesh, 12-16 October
- Management of Serial Bomb Blasts, NIDM, 14-16 October
- Climate Change and Disasters, APARD Hyderabad, 26-30 October
- Management of Industrial and Chemical Disasters, NIDM, 26-30 October
- Basic Course on DM for NDRF Commanders, 9-13 November
- Urban Risk Mitigation, DMI, Bhopal, 9-13 November
- Disaster Health Care, 9-13 November
- Climate Change and Disasters, NIDM, 16-20 November
- Relief Management, 16-20 November
- Mitigation of Hydro-meteorological Disasters, ATI Mizoram, 23-27 November
- Management of Stampedes and Road Accidents, 23-27 November
- Formulation of District Disaster Management Plan, ATI Manipur, 30 Nov- 4 December
- Formulation of District Disaster Management Plan, ATI Punjab, 30 Nov- 4 December
- Flood Risk Mitigation and Management, ATI Delhi, 30 Nov- 4 December
- Mainstreaming DRR in Development, NIDM, 3-4 December
- Urban Risk Mitigation and Management, 7-11 December
- Disaster and Disabilities, 7-11 December
- Environment and Disaster Management, Tezpur University, 14-18 December
- Comprehensive Landslide Risk Mitigation and Management, ATI Karnataka, 14-18 December
- Earthquake Risk Mitigation and Management, ATI Assam, 14-18 December
- Applications of GIS and Remote Sensing in Disaster Management, ATI West Bengal, 14-18 December
- Gender Issues in Disaster Management, NIDM, 14-18 December
- Basic Course on DM for Civil Defense officers, 14-18 December
- Mainstreaming DRR in Development, NIDM, 22-24 December

## Online Training Programme with WBI

- Comprehensive Disaster Risk Management Frame work, 14 Dec to 25 January 2010

**We welcome comments / responses / articles from readers of our Newsletter  
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