

## BACKGROUND

Uttarakhand, the hill State in Northern India was severely hit by flash floods and landslides on 16<sup>th</sup> and 17<sup>th</sup> June, 2013, resulting into huge loss to lives and properties. The heavy rainfall, according to IMD, was 4-9 times of normal for the week of June 13-19, 2013. The possible causes of the unprecedented phenomena were: 1) Collision of Western disturbances with monsoon easterlies, 2) Heavy precipitation on three continuous days above tree line resulting into runoff of debris, moraine and boulders from 13000 ft to 6500 ft in 6km distance. There have been cloudbursts in several river basins including the Bhagirathi, Alaknanda, Yamuna, Asiganga and Mandakini, which were devastated by flash floods and landslides. Several villages and settlements such as: Kedarnath Shrine area, Harsil, Uttarkashi, Gaurikund, Rambara, Guptkashi, Sonprayag, Srinagar, etc. suffered heavy damages. Though parts of Himachal Pradesh, Haryana, Delhi and Uttar Pradesh in India, some regions of Western Nepal, and Western Tibet also experienced heavy rainfall, over 95% of the casualties occurred in four districts of Uttarakhand. As of July 29 about 580 were confirmed dead and more than 5,359 people (including 938 locals and 4421 pilgrims) and 91 Nepali citizen are "presumed missing".

The Army, Air Force, Indo-Tibetan Border Police (ITBP), National Disaster Response Force (NDRF), Border Roads Organisation (BRO) Public Works Department and local administration worked together for quick rescue operations. Several thousand personnel were deployed for the rescue missions. Activists from political and social organizations were also involved in the rescue and management of relief centres. The national highways and other important roads were closed to regular traffic. Helicopters and various other modes of transport were used to rescue people, but due to the rough terrain, heavy fog and rainfall, manoeuvring them was a challenge. About **150,000** pilgrims, tourists and 40-50 thousands local residents trapped in the valleys were rescued.

On June 25, one Indian Air Force (Mi-17V5) rescue helicopters returning from Kedarnath, carrying 5 Air Force, 9 NDRF, and 6 ITBP officers crashed on a mountainous slope near Gauri Kund, killing all on board.

The unfolding tragedy in Uttarakhand has raised the inevitable question: how much of it was avoidable? Was this merely nature's fury or man-made disaster?

In order to share the learning experience from all the government and non-government organisations involved in the rescue, relief and rehabilitation, NIDM is organising one day workshop on August 19, 2013.

## OBJECTIVES

- To collate information and share knowledge/experiences about the causes of the mega event.
- To develop document that includes lessons learnt by all stake holders.
- To suggest future strategies for short and long term recovery, rehabilitation and reconstruction.



## WHO SHALL ATTEND?

All government and non government organizations involved in the response, relief, rescue and rehabilitation, etc. including UN agencies, education and research organizations.

**Participation is by invitation only. No Registration fee is required**

## OUTCOME

The workshop would be helpful to compile all information in the form of a document and disseminate the same to all concerned for better resilience.

## CHIEF GUEST

Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA, New Delhi

## PROGRAMME

Time (hrs)	Session	Speakers
0900 - 1000	<b>Registration</b>	NIDM staffs
1000 - 1040	<b>Inaugural Session</b>	<ul style="list-style-type: none"> <li>▪ Welcome Address – ED NIDM</li> <li>▪ Address by Uttarakhand State representative</li> <li>▪ Address by Guest of Honour</li> <li>▪ Address by Chief Guest</li> </ul>
1100 - 1300	<b>Session 1: Uttarakhand Disaster and Response</b>	Presentation by representatives from: <ul style="list-style-type: none"> <li>▪ NIDM</li> <li>▪ Army</li> <li>▪ Air Force</li> <li>▪ ITBP</li> <li>▪ NDRF</li> <li>▪ BRO</li> <li>▪ Jolly Grant Airport</li> <li>▪ Relief Manager, Uttarakhand</li> </ul> <ul style="list-style-type: none"> <li>▪ Chairpersons (2): Hon'ble Members, NDMA</li> <li>▪ Rapporteur: Faculty NIDM</li> </ul>
1300 - 1400	<b>Lunch Break</b>	
1400 - 1600	<b>Session-2: Coordination &amp; Administrative Issues</b>	Presentation by: <ul style="list-style-type: none"> <li>• DMMC, Dehradun</li> <li>• DM Divn., MHA</li> <li>• UN-DMT</li> <li>• Police Dept.-Uttarakhand</li> <li>• Dist. Authorities- Uttarakhand</li> <li>• NDMA</li> <li>• CBO/NGOs</li> </ul> <ul style="list-style-type: none"> <li>• Chairperson: Hon'ble Member, NDMA &amp; SDMA</li> <li>• Rapporteur: Faculty NIDM</li> </ul>

Time (hrs)	Session	Speakers
		<ul style="list-style-type: none"> <li>• IAG-Uttarakhand</li> </ul>
1600 - 1615	<b>Tea/Coffee</b>	
1615 - 1745	<b>Session-3: The Way Ahead (Future Strategy)</b> - Panel discussion <ul style="list-style-type: none"> <li>• Chairperson: Secretary (BM) , MHA &amp; experts from states</li> <li>• Rapporteur: NIDM</li> </ul>	Presentation by: <ul style="list-style-type: none"> <li>▪ Geo-hazards Specialist</li> </ul> Representatives from: <ul style="list-style-type: none"> <li>▪ Uttarakhand</li> <li>▪ Odhisa</li> <li>▪ IIRS</li> <li>▪ IMD</li> <li>▪ Planning Commission</li> </ul>
1745 - 1830	<b>Valedictory Session</b>	Chief Guest: Hon'ble Member, NDMA Concluding Remarks Vote of Thanks

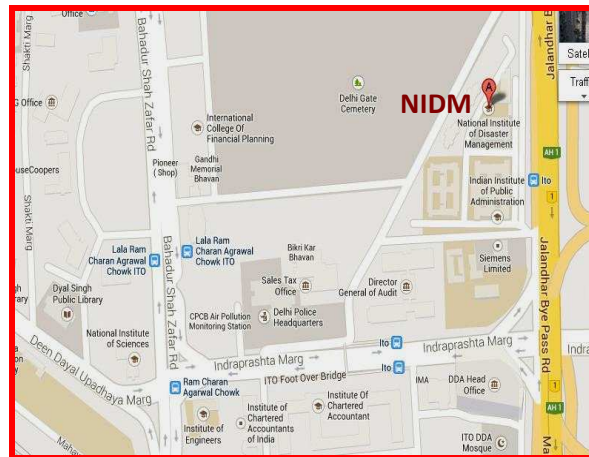
#### ABOUT NIDM

NIDM is a statutory body of Government of India, mandated under the Disaster Management Act 2005 for research, documentation and assisting the Government in Policy Planning on all the aspects of disaster management. In accordance to its mandate NIDM has initiated documentation process of this mega disaster of June 2013 to understand the causes, impact and lessons learnt. To compile primary information about the disaster, NIDM team visited the affected areas from 22-24 June and 10-14 July 2013 and had interaction meetings with various stakeholders and role players, including communities. NIDM is also carrying out extensive survey in the disaster affected area.

#### HOW TO REACH

NIDM is located within the campus of Indian Institute of Public Administration (IIPA), Mahatma Gandhi Road (Ring Road), ITO, opposite to Indraprastha Indoor Stadium and Delhi Secretariat or near Delhi Police HQ. The Institute is connected by a number of bus routes and

the most convenient is to take a pre-paid taxi service from airport or railway stations.



SNo.	Place	Distance
1.	IGI Airport (Domestic Terminal)	23 Km
2.	IGI Airport (International Terminal)	28 Km
3.	Delhi Metro : Indraprastha Station	1.5 Km
4.	Old Delhi Railway Station	10 Km
5.	New Delhi Railway Station	06 Km
6.	Hazrat Nizamuddin Railway Station	10 Km

#### CONTACTS

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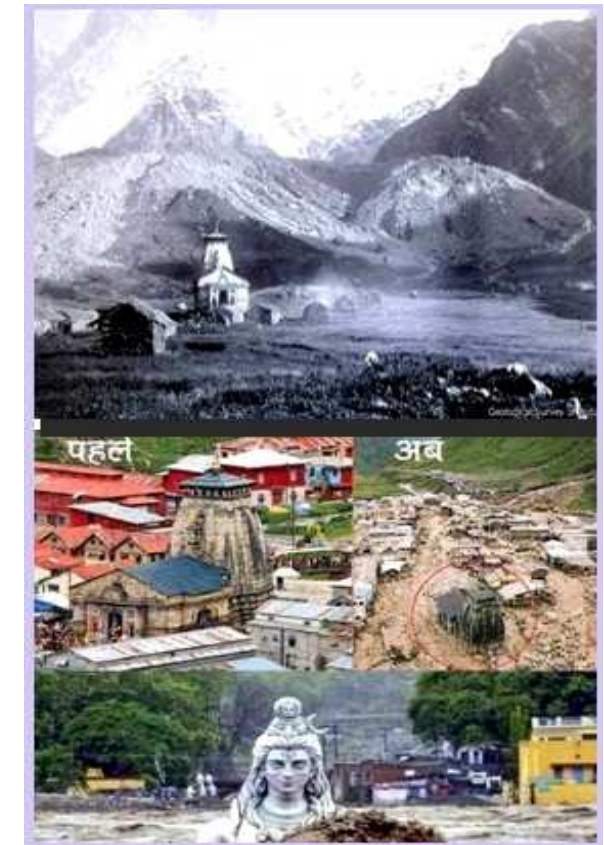
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**nidm**  
Towards a disaster free India.....

**NATIONAL WORKSHOP ON  
UTTARAKHAND DISASTER 2013: LESSONS LEARNT**  
**Venue: Conference Room, Ground Floor, NIDM**  
**Date: August 19, 2013**



**Organised by:**  
**National Institute of Disaster Management**  
**5B, I.P. Estate, Mahatma Gandhi Marg**  
**New Delhi-110002**  
**Tel-Fax: +91-11-23702446, [www.nidm.gov.in](http://www.nidm.gov.in)**

## **National workshop on “Uttarakhand Disaster 2013: Lessons Learnt”**

Venue: NIDM building, IIPA campus, New Delhi

Day: Monday, Date: August 19, 2013

Uttarakhand, the hill State in Northern India was severely hit by flash floods and landslides on 16th and 17th June, 2013, resulting in huge loss of lives and properties. As on date more than 580 persons are confirmed dead and 5,474 (including 938 locals and 4421 pilgrims) and 91 Nepali citizen are "presumed missing" and feared to be dead. The Army, Air Force, Indo-Tibetan Border Police (ITBP), National Disaster Response Force (NDRF), Border Roads Organisation (BRO), Seema Suraksha Bal (SSB), Public Works Department and local administration worked together for quick rescue operations. Several thousand personnel were deployed for the rescue missions. Activists from political and social/religious/philanthropic organizations were also involved in the rescue and management of relief centres. The national highways and other important roads were closed to regular traffic. Helicopters and various modes of other transports were used to rescue people, but due to the rough terrain, heavy fog and rainfall, manoeuvring them was a challenge. About 150,000 pilgrims, tourists and 40-50 thousand others trapped in the valleys were rescued till July 31st.

In order to share the learning experience of all the organizations involved in the rescue, relief and rehabilitation, NIDM organized one day national workshop on “Uttarakhand Disaster 2013: Lessons Learnt” on Monday, August 19, 2013 at its own campus.

The objective of the workshop was:

- To share the experiences of all organisations directly and indirectly involved with the massive relief and rescue works
- To synthesize early warning related information and reasoning by various experts on the country's predicaments in “cloud burst” forecasting
- To accumulate information for the development of a national document
- To suggest strategies for short, medium and long term recovery, rehabilitation and reconstruction.

More than 130 participants from various government and non government organisations attended the workshop. The inaugural session started with the observation of *two minutes* silence for those deceased.

In the welcome address, Dr. Satendra, Executive Director, NIDM explained the importance of documentation of the Uttarakhand deluge. He informed that NIDM team visited twice to Uttarakhand and collected valuable information based on extensive survey work in all the four severely affected districts. He appealed all to provide their valuable feedback in the form of exclusive article/document for inclusion the documentation.

Shri S.K. Muttoo, Chief Resident Commissioner, Uttarakhand Government, expressed that NIDM should bring out all facts and figures with clarity for all to realize their faults and folly. Padma Bhusan Shri Chandi Prasad Bhatt, the renown environmentalist in his “Guest of

Honour” address recalled his truce with “Chipko Movement” of 1960’s and reminded every one to redevelop Uttarakhand in harmony with the Mother Nature.

Shri. M. Shashidhar Reddy, Hon’ble Vice Chairperson, the National Disaster Management Authority, in his inaugural address as Chief Guest, placed great emphasis on the NIDM’s effort for the documentation of Uttarakhand Disaster and appealed everybody to stand by the objective set forth for the daylong workshop. He stressed more on the coordination and integration of all national organizations/agencies towards reconstruction and rehabilitation of Uttarakhand.

The workshop had three main sessions

- 1) Uttarakhand Disaster Response (Rescue& Relief)
- 2) Coordination and Administrative issues
- 3) The way ahead (Future strategy)

The first session was chaired by Shri V.K Duggal, Hon’ble Member, NDMA, who was nominated by Government of India as “coordinator” of “Response and relief” operation till 31<sup>st</sup> July 2013. Presently he has been assigned as “coordinator” of the “Reconstruction and Rehabilitation” strategy till October 2013. In the beginning Shri Duggal, answered to questions from the participants on the overall response.

Shri P.P. Srivastava, Hon’ble Member, North Eastern Council (NEC), also chaired the session. In the first keynote presentation by Prof. Chandan Ghosh, NIDM, many issues regarding river side development alternatives, codes, guidelines, technology and feasibility, landslides mitigation were raised. He highlighted nation’s status on the forecasting of ‘cloud bust’ and “flood forecasting” in the hilly terrains. He gave ample example of some mitigation methods with better and cheaper alternatives for the repair and reconstruction of roads, water supply scheme, power line, public health facilities, houses, buildings, communication lines.

Presentations by dignitaries from Indian Army, Air Force, ITBP, NDRF, BRO, state police gave very comprehensive accounts of the hard work rendered during massive rescue and relief operations. Discussions included such as problem faced in the IMD’s early warning dissemination, strategy evolved in rescuing trapped people in harsh situation, problem faced during operation and also discussed how various government departments and local administration worked together for rescue operations.

The second session on Coordination and Administrative Issues was chaired by Shri Nand Kumar, Hon’ble member NDMA and Shri Anil Sinha, Hon’ble Vice Chairman Bihar Disaster Management Authority. During the session the participants mainly shared their experiences related to coordination among various agencies involved in response and rescue operation during the disaster. The policy issues related to disaster management response and relief were also discussed in the session.

The third and last session chaired by Dr Muzaffar Ahmed, Hon'ble Member NDMA, Dr P. K. Mishra, Chairman GERC and Professor V. K. Sharma, Hon'ble Vice Chairman, Sikkim Disaster Management Authority mainly focussed on future strategy for reconstruction and rehabilitation in disaster affected area of Uttrakhand. The renowned environmentalist Shri Chand Prasad Bhatt in his key note address emphasized on sustainable and eco friendly development in the region. The other dignitaries like Dr R. K. Bhandari and Dr. Y.V. N. Krishnamurthy focussed their discussion on use of science and technology in reconstruction and rehabilitation.

The Workshop concluded with vote of thanks and concluding remarks by Prof. Chandan Ghosh.

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**Resource Persons List  
National Workshop on  
UTTARAKHAND DISASTER 2013: LESSONS LEARNT  
August 19, 2013**

Session	Sl. No.	Name & Address	Contact no.
<b>Inaugural session</b>	1.	Shri S.K. Muttoo, Chief Resident Commissioner, Uttarakhand 104-Inder Prakash Building, 21, Barakhamba Road, New Delhi-110001.	011-23738498 rescm-ua@nic.in
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	3.	Shri M. Shshidhar Reddy Hon'ble Vice Chairman National Disaster Management Authority NDMA Bhawan, A-1, Safdarjung Enclave New Delhi-11029	011-26701701 011-26701706 (Fax) vc@ndma.gov.in, vc.sectt@gmail.com
<b>Session-I</b>	4. <b>Chairpersons</b>	Shri V.K. Duggal Hon'ble Member National Disaster Management Authority NDMA Bhavan, A 1, Safdarjung Enclave New Delhi-110029	011-26701777 26701729 (Fax); 26701876 (Fax)
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<b>Session-II</b>	12. <b>Chairpersons</b>	Shri T. Nanda Kumar Hon'ble Member National Disaster Management Authority NDMA Bhavan, A 1, Safdarjung Enclave New Delhi-110029	23092440 tnandakumar@ndma.gov.in
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<b>Session-III</b>	20. <b>Chairpersons</b>	Dr. Muzaffar Ahmad, Member Hon'ble Member National Disaster Management Authority NDMA Bhavan, A 1, Safdarjung Enclave New Delhi-110029	09873712355 011-26701761 (O) 26701767 (Fax) 24103819 (R) muzaffarahmad@ndma.gov.in
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**National Institute of Disaster Management  
(Ministry of Home Affairs, Govt. of India)**

**List of members participated in the workshop on “Uttarakhand Disaster 2013: Lessons Learnt”**

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