

Public Lecture

On

“Uttarakhand Tragedy: Man Made or Natural”

13th August, 2013 India International Centre (IIC), New Delhi

The recent catastrophic flash-floods has left the holy land of pilgrims, Uttarakhand, inundated and barren, leaving behind nothing but dilapidated relics, heaps of mud, boulders and the dead. The loss of life and property has been enormous and the damage would take years to recover.

Although the calamity that wrecked Uttarakhand was natural, caused by cloud burst and flash floods, nevertheless the impact on human life and property is testimony to years of haphazard and irrational development this region has seen. Environmental laws and requirements had been violated with impunity. Indiscriminate urbanization, unabated expansion of power projects, mining, cutting of trees, illegal encroachments, broadening of roads and tunnels and the illegal constructions in the fragile eco-sensitive zone, are said to be a cause.



As Uttarakhand grapples with one of the worst natural disasters the State has faced in recent years, questions need to be raised on how far of the destruction was preventable, and if this is a warning for the future. It is in this light that Toxics Link in collaboration with India International Center organized a Public Lecture on **‘Uttarakhand Tragedy: Man Made or Natural’** on 13th August, 2013.

The discussion was preceded by a video clip about the disaster. The panel included eminent speakers like Prof. Chandra Shekhar Dubey (Prof. & Head, Department of Geology, University of Delhi), Dr. Chandan Ghosh (Head of the Geo-Hazard Risk Management Division, NIDM), Himanshu Thakkar (Coordinator of South Asia Network on Dams, Rivers & People) while the discussion was moderated by Mr. Ravi Agarwal (Director, Toxics Link).

Mr. Ravi Agarwal opened the discussion by stating the need to rethink about the ecological landscapes



and the way we deal with policy and legislations. Expressing deep resentment, he noted that in a fast moving world we do not have time to pause and think about some of these pertinent issues. In case of Uttarakhand tragedy, it is only when the disaster came to the fore that we started contemplating and discussing about the issue, despite the fact that the disaster had been in making for quite some time. What had been happening in Uttarakhand is happening in other fragile ecosystems as well like the Aravali, the Western Ghats and the Himalayas and it is imperative to

reflect on some of the challenges they are facing.

Mr. Himanshu Thaakkar threw light on some of the cardinal failure and malfunctioning on the part of the state government and the monitoring agencies. Mr.Thakkar pointed that lack of co ordination among IMD, NDMA and the Uttarakhand government largely amplified the disaster. Advance measures on the part of administration could have saved many lives; he noted.

Despite the fact that the river was already in its full spate by 16th itself, no preventive measures were taken by the administration. He further shared that Uttarakhand experienced 1400% higher rainfall in the entire week, than it normally receives. Yet, no site specific data is available even today. The fact that the whole Rudrayprayag district has just one rain gate station reflects the level of monitoring system.



Elaborating on the shoddy forecasting and monitoring system, Mr. Thakkar shared that it is possible to forecast high intensity rainfall and cloudbursts for which technologies like the Doppler Radar Systems are available and it was sanctioned for Uttarakhand. The Doppler Radar system could have given warning six hours in advance but the system was not in place. There was not just a

general warning which was neither precise location wise nor time wise, and the UK government said that it was not actionable enough. Although the disaster had already started unfolding on 16th June itself, the helicopters were still operating and carrying the pilgrims, he added.

Even the premier flood forecasting institute of India, the Central Water Commission which is the highest technical body of water resources in India and is responsible for forecasting floods did not forecast any floods in Uttarakhand. With an efficient motoring system and forecasting preparedness a lot of disaster could have been avoided.



Touching on the indiscriminate and irrational developmental interventions in the region, Mr. Thakkar pointed that development intervention in a place like Uttarakhand which is highly prone to landslides, flashfloods, high intensity rainfall and cloudbursts, needs to take into consideration the demographic and topographical facts of the area. Rampant and

unscientific mining on the riverbanks and indiscriminate construction of hydropower projects added to the disaster in making, he said. Further, there are huge tunnels which can be 5-30 kms long tunnels, which are blasted through. Blasting is not only done for tunnels and dams but also for road building.

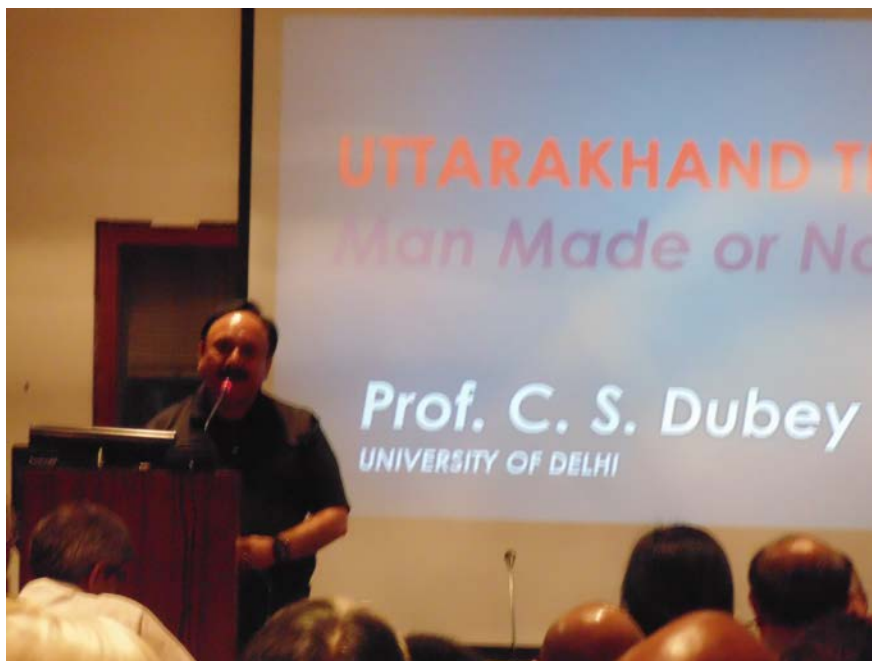
Elaborating on the Hydro power projects in the region Mr. Thakkar shared that there are 98 operating hydropower projects with a capacity of 3,600 megawatts, 41 are under construction with a total capacity of 2378 mega watts and 197 proposed hydropower projects with a capacity of 21213 megawatts. Each of these projects are termed as just run of the river projects whereas in reality each of these projects have big dams as defined internationally, each of them have capacity of several million cubic meters of water. Dam constructions involve blasting, debris dumping, deforestation, diversion of rivers, all of which catalyzed the adverse ecological impact the region, making it more vulnerable.

The State Government, Indian Meteorological Department (IMD), Central Government, Ministry of Water Resources, Central Water Commission and Disaster Management, needs to learn the lessons. There is a need to strengthen the compliance level and learn from the disaster.

Dr. Chandan Ghosh threw light on the mismanagement on the part of the Uttarakhand government and attributed lack of co-ordination among the scientific nodal bodies and the state authorities as the prime reason for enormous loss of life and property. He further stated that it is a well known fact that the Himalayas are fragile, made more so by deforestation and unorganized constructions. Experience of early

/late season rainfall, monsoons, drought early furious entry of monsoon in the recent times underscores the fact, that all this requires greater policy attention.

Further there is a serious need to review our weather forecasting and forecast dissemination mechanism considering both technological and institutional options. The disaster has given us a wakeup call on what actions needs to be taken, he noted. The scientific and nodal bodies (ISRO, IRS, NRSA.GSI, IMD, CWC.BRO, PWD.) needs to co-ordinate while Technical organizations like the CBRI, CRRI, SERC. IITs needs to be motivated for a more field based research. Mr. Gosh urged for the need to address the developmental activities with rigidity, with heavy tourist rush, hundreds of dam projects, deforestation, rampant and illegal constructions happening locally.



While **Prof. Chandra Shekhar Dubey** took through the topography and the landscape of the region and pointed that the Uttarakhand region is prone to Orographic kind of rainfall. He said that there is a need to identify the orographic areas where landslides are bound to happen and start working on the areas. There is a need to have some kind of warning system and rain gauging systems, he added.

He also shared that continuous heavy rainfall and oriography should be taken as a precursor to landslides and flash floods and preventive measures should be taken accordingly. If we have very high rainfall there is a need to understand that area and how we need to tackle the areas.

The lecture saw an overwhelming response with more than 70 participants attending the lecture which included representatives from Disaster Management Institute, Film makers, Delhi University, JNU, Educational and Research Institutes, Universities, Media houses, Civil Societies and schools.

