The Malin Mud Avalanche Tragedy of 30 July 2014 - The time to ask the right questions

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The mud avalanche that ravaged the Malin village in Pune district of Maharashtra on 30 July is hardly any different in its end effect from the rock avalanche tragedy which struck the village of Malpa in the State of Uttarakhand (then northern Uttar Pradesh) in the early hours of 18 August 1998. Both obliterated the villages located in the lower reaches of their respective potentially threatening mountain slopes. Of the comparable population of about 250 in each of the above two cases, 210 people were buried alive by the Malpa rock avalanche and the death toll in Malin may not be significantly different when the head count gets validated (Figure 1). Rescue teams at Malpa had to battle to exhume bodies buried under 15-m thick debris and in the present case, the National Disaster Response Force has no easier task dealing with 7-m thick muck at the foot of the Bhimashankar hill, fouled with bricks, thatch, gas cylinders, muddied clothes and bicycle parts.

The oft-repeated standard and stale reason put forward to explain the two ghastly events is the rainfall preceding the events. At Malpa, the avalanche had struck in the wee hours of the 18 August 1998. On the previous day at 21:30 hrs, rainfall resumed for a few hours and by about 00:37 hours, Malpa was completely wiped out of the map of Uttarakhand. At Malin, the tragedy which occurred in the early hours of 30 July 2014 around 07:30 am, is also being explained in terms of the rainfall of 108 mm on the previous day. Is the rainfall figure too high when seen in the context of the meagre rain in the preceding weeks and years? These are only half-truths, as rainfall has always been a seasonal visitor for centuries on end and is to be considered as nothing more than the last straw that broke the camel's back. In both the cases, even before scientific investigations are taken on hand, the blame also fell on factors such as human violence against ecologically fragile slopes, deforestation, improper land use and quarrying, as in a text book example.

At Malin, the government has, as usual, assured the victims of all possible assistance, payments to compensate for every life lost with assurance of rehabilitation of the victims. Such declarations are, by now, familiar to our ears. In the next few months, it is not unlikely that Malin will be forgotten the same way as we have forgotten Malpa, until we get another jolt. In fact it is not only Malpa, we have forgotten dozens of such tragedies which have paraded before our eyes from time to time. Two such examples are shown in Figure 2.

The end of every such tragedy is usually the beginning of the season of meetings, conferences, seminars and workshops. The ensuing debates on whether the disaster was natural or man-made and whether it could have been prevented are seen to naturally fade after generating a lot of heat but hardly any light. The post-mortem studies are more sketchy than scientific and these too end up with piles of reports and papers, which eventually gather dust on the table.

It is high time we dare ask the right questions. National Disaster Management Act of 2005 gave a passionate call for a paradigm shift in our approach from the relief-centred response to disaster prevention and mitigation and yet no one speaks a word of prevention, leaving everything to the heroic deeds of the last bastion, the National Disaster Response Force. The various guidelines issued by the National Disaster Management Authority after years of hard work, aim at zero tolerance for non-engineered constructions and for flouting of techno-legal regime and yet no one raises even a little finger to insist on investigating disasters to the last detail, learning lessons and making someone accountable to ensure that the same mistakes are not repeated over and over again. The country has designated Geological Survey of India as the nodal agency for landslides, but that declaration made years ago, and ratified yet again, remains a secret to most of the landslide victims, and our countrymen at large. We would like it to lead from the front and be a visible face of hope.

We will never be able to avert future disasters unless the mandated institutions measure up to their responsibilities in a coordinated fashion with eyes fixed on clock and compass. The foremost responsibility is to usher the culture of safety in a way that the progress is seen on the ground and touch the imagination of the people. Antoine de Saint Exupéry, a French Writer sums it up beautifully when he says that "If you want to build a ship, don't drum up men to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea."

The other questions that must be asked are why the tragedy could not have been foreseen and avoided, and why the response was not quicker? The Malpa tragedy occurred at 00:37 am on the 18 August 1998, after the symptoms that surfaced on the 14 August were ignored. The thunderous sound of the rock avalanche was heard on 18 August by around 00:25 am. Five minutes later, sky witnessed fireworks due to colliding boulders. Closely on the heels of this came the fury of a dust storm. We had no preparedness to capture these signals and the first message of the tragedy could be radioed from the ITBP only at 05:25 am, and the real help came hours later. Why did we not learn from this?

Like at Malpa, the residents of the neighbouring Asane village had sensed the incoming mud avalanche at Malin by the loud noise heard at about 03:00 am. There were evidences of howling wind as well, similar to the experience at Malpa. There being no early warning system in place, the village Malin too did not receive attention until a bus driver encountered the devastated landscape at 07:30 am, and

the Manchar city authorities got the news thereafter. National Disaster Response Force (NDRF) personnel could reach the site only by the afternoon. District collector reportedly came to know about the incident at 09:00 am. We lost hours at a time we were short of seconds!

Why no attempts were made to prevent abuse of land, educate the people on the perceived threat and on do's and don'ts, restore ecological stability of the area and disallow non-engineered dressing of the slopes for agriculture. Was it difficult for the government to keep a tight check on felling of trees, abuse of land and stone quarrying in the area, especially when landslides have been a common occurrence in this part of the district, and only last year, the neighbouring village of Kolthawadi was hit by a landslide?

Whenever landslide disasters strike, we rush to lean on fixed ideas in our minds. It has almost become ritualistic to name rainfall to explain away cataclysmic floods and devastating landslide events, without even attempting to understand the slope dynamics. We can understand landslides only by systematic geotechnical, geomorphologic, hydro-geological and seismic characterisation of slopes, and study of the environmental impact of urbanisation. The question to ask is: Why then scientific investigations in our landslide-prone areas are exceptions rather than a rule? The earlier we insist on prevention by taking recourse to scientific investigations, the better.

The mud avalanche of 30 July 2014 obliterated the village of Malin in the Pune district of the State of Maharashtra burying more than 150 people. The rescue teams arrived on the scene hours after the incident. The truth about the causative factors will be known only after the completion of the scientific investigations

Figure1: The rock avalanche of 17-18 August 1998 which swept away the village of Malpa, burying over 200 people and several ponies under the heaps of debris. There were all three or four survivors as though to tell the tale. The episode of 14 August 1998 was taken casually as a freak event and rescue teams took considerable time to arrive

The earthslide of November 2009 in Ooty in the Nilgiris played havoc with the human settlements. The tragedy was avoidable but we did not learn lessons.

Figure 2:The earthflow of 8 October 1993 at Helauda in the district of Ratnapura in Srilanka which buried all the 13 houses at the foot of the slope under the huge piles load killing 31 people as the lives could not be saved because of the delayed response. The slope was known to be unsafe.