

## STRATEGIES, PLANNING AND LEARNING: UTTARAKHAND FLASH FLOOD

---

*Pratibha Barik (Research Scholar)*  
*Department of Management Studies*  
*Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur, India*  
*e-mail: [pratibha.barik@gmail.com](mailto:pratibha.barik@gmail.com)*  
*Ph-9755298943*

---

**Abstract:** India has been frequently affected by the natural disasters like floods, droughts, cyclones, earthquakes and landlines. About 60% of the landmass is prone to earthquake. Various studies have shown over 40 million hectares is prone to floods, about 68% of the area is susceptible to drought and about 8% of the total area is prone to cyclones. The geo-climatic condition has made India the most disaster prone country in the world to suffer from natural disasters. In June 2013 India faced a serious flash flooding problem in Uttarakhand, which impeded the Indian Government with a loss of ₹ 12000 cr., a big loss to the State's tourism industry in the current fiscal, says a PHDCCI survey. The survey conducted by the PHD Chamber of Commerce and Industry also estimates that around 11 per cent of Uttarakhand's Gross State Domestic Product (GSDP) for this fiscal has been ruined in terms of prospective tourism earnings on account of the flood in all its riverbeds. These entire natural problems incurred because of an open secret that's unplanned urbanization, industrialization, and unscrupulous development plans. These caused the serious human deaths and destruction of private and public property. After this natural hazard the biggest challenge to be faced by the government is to reconstruct and flourish this tourist place as well as development of this State. This paper is a empirical study into this matter and an attempts to understand the mechanism responsible for this natural hazard. Apart from this to know what measures were taken by the government to overcome this issue whereas the learning they had from this incident.

### Introduction

A disaster may strike any given destination without warning, this being one of the many aspects that hamper destinations image and the locals as well as tourist sense of safety, so to avoid raising any such concerns, in a given

situation any destination must be well equipped to combat the catastrophe. In June 2013, a multi-day cloudburst centered on the North Indian State of Uttarakhand caused devastating floods and landslides becoming the country's worst natural disaster since the 2004 tsunami. The reason the floods were on

such a larger scale than the regular floods the state usually received was because of the debris of the building of dams upstream. The debris blocked up the rivers, causing major overflow. The main day of the flood is said to be on 16 June 2013. Though some parts of Himachal Pradesh, Haryana, Delhi and Uttar Pradesh in India experienced the flood, some regions of Western Nepal, and some parts of Western Tibet also experienced heavy rainfall, over 95% of the casualties occurred in Uttarakhand. As of 16 July 2013, according to figures provided by the Uttarakhand government, more than 5,700 people were "presumed dead."<sup>1</sup> This total included 934 local residents<sup>2</sup>.

National Disaster Management Authority (NDMA) is an agency of the Ministry of Home Affairs whose primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response. NDMA was established through the Disaster Management Act enacted by the Government of India in December 2005.<sup>[3]</sup> The Prime Minister is the

---

<sup>1</sup> "India raises flood death toll to 5,700 as all missing persons now presumed dead". CBS News. 16 July 2013. Retrieved 16 July 2013.

<sup>2</sup> "India says 5,748 missing in floods now presumed dead", Fox News, 15 July 2013

ex-officio chairperson of NDMA. The agency is responsible for framing policies, laying down guidelines and best-practices and coordinating with the State Disaster Management Authorities (SDMAs) to ensure a holistic and distributed approach to disaster management. The heavy rains resulted in large flashfloods and massive landslides.

After Uttarakhand flood flash disaster it was observed that the State Disaster Management Authority were not well equipped with the schemes to fight with this serious problem. The flash floods and landslides in Uttarakhand of June 2013 decisively proved the absence of any preventive and mitigation measure. This happened in a state that has history of such disasters.

The post disaster relief response has been also equally poor—more than 70,000 people are reported missing. How prepared the Apex disaster body would be in other parts of the country for dealing with totally unexpected events is anyone's guess. The paper discusses the measures taken before and after the flood flash at Uttarakhand. What several steps to be taken for disaster management, and touches upon how to restore a destination back to normalcy, how to tackle marketing for a destination in the midst of a crisis as well as the importance of destination management through the implementation of Destination Management Organizations(DMOs).

Relief measures: These activities include wide range of action planning by the concern

authorities like erection of control booths, steps taken as per the draft plan, the broad After the disaster Indian Army Forces took the initiative to provide rescue, rehabilitation and monetary help to the victims.

The Army, Air Force, Navy, Indo-Tibetan Border Police (ITBP), Border Security Force, National Disaster Response Force (NDRF), Public Works Department and local administrations worked together for quick rescue operations. Several thousand soldiers were deployed for the rescue missions. Activists of political and social organizations are also involved in the rescue and management of relief centres. The national highway and other important roads were closed to regular traffic. Helicopters were used to rescue people, but due to the rough terrain, heavy fog and rainfall, maneuvering them was a challenge. By 21 June 2013, the Army had deployed 10,000 soldiers and 11 helicopters, the Navy had sent 45 naval divers, and the Air force had deployed 43 aircraft including 36 helicopters. From 17 to 30 June 2013, the IAF airlifted a total of 18,424 people - flying a total of 2,137 sorties and dropping/landing a total of 3,36,930 kg of relief material and equipment.

On 25 June, one of 3 IAF Mil Mi-17 rescue helicopters returning from Kedarnath, carrying 5 Air Force Officers, 9 of the NDRF, and 6 of the ITBP crashed on a mountainous slope near Gauri Kund, killing all on board.

casting of danger notice.

The deceased soldiers were given a ceremonial Guard of honour by Home minister of India, at a function organised by the Uttarakhand State Government.

Indo Tibetan border Police (ITBP) a Force which guards the Indo China borders on the high himalayas with its 3 Regional Response Centres (RRCs) based at Matli (Uttarkashi), Gauchar (Chamoli) and Pithoragarh swung into action and started rescue and relief operation. 2000 strong ITBP force with its mountaineering skills and improvisation methods started rescue of stranded pilgrims. It was a simultaneous effort by ITBP at Kedar ghati, Gangotri valley and Govind ghat areas. According to official figures by ITBP, they were able to rescue 33,009 pilgrims in 15 days on their own from extreme remote and inaccessible areas. Before Army or Air Force called in, being deployed in the nearby areas, ITBP took the first call and saved many lives. They also distributed food packets to stranded pilgrims who were in a pathetic condition being not having any food for more than 72 hours at many places. While restoring the state to normalcy, it is also equally necessary to ensure that if, unfortunately, the disaster revisits, the extent of damage is lesser. Restoration includes assistance, rehabilitation and reconstruction. "In addition to this, many protective steps will be taken to prevent if same calamity recurs in

any case. It is decided to keep a track of the pilgrims –Indian as well as foreigners. Moreover, this time efforts will be made to handle things thoroughly and systematically” returns (“Char Dham yatra”, 2013, para.3).

#### **Revival after the disaster:**

The resurgence after the flash flood at Uttarakhand is to focus on the erection of facilities of greater competence than those built in pre-disaster stage. During this stage care is to be taken to see to it that building do not encroach nature and that they are built in a sustainable manner. A survivor claims that there is nothing left in Kedarnath except for the temple, which now will take these three years to restore, as from the building to the roads were washed away in the flood (IAN, 2013). The government has curtailed the Char Dham yatra for three years so to get repair and restoration as quoted by B.D. Singh, chief executive officer of the Badrinath-Kedarnath Temple Committee told IANS (2013), that the chances of reviving the pilgrimage “for the next few years” was grim, “what we are seeing is very painful and unbelievable,” he said. “We don't expect the Char Dham Yatra to resume in the next three years.” (para.2). After this disaster, to revive this holy destination it requires ample time and a systematic planning.

#### **Work in Progress:**

It's tough job to bring back the affected regions and people to a normal life. This process is quite long –especially because of the existence of severe financial constraints. The government is taking initiative to raise fund from both the public and private fronts. To facilitate the above various funds and relief funds are raised throughout the country. Few donations sent were as follows: Doctors For You, Uttaranchal Daivee Aapada Peedith Sahayata Samiti, Uttarakhand relief fund, individuals contributions and relief funds such as the Chief Ministers relief fund, Prime Ministers relief fund etc. all have come to aid the state of Uttarakhand. Besides this the chance of the Char Dham Yatra to resume excluding Kedarnath is also expected by the end of 30th September, 2013 so as to help the locals who survived solely on tourism returns (“Char Dham yatra,” 2013). An apt means of ensuring that the destination thrives in spite of being in a crisis is through the adoption of an effective means to restore the destination post the disaster. These following approaches are the steps being taken to again flourish this holy destination.

#### **Conclusions:**

Further the study reveals that Uttarakhand is facing crucial flash flood problem caused due to cloud burst. The population is not going to stop thus led to increase habitation and threat of flash flood disasters. For this natural hazards not only nature but to some extent

humans are even responsible like encroaching near river sites, cutting of plants and unplanned building etc.

This natural calamity has slammed a heavy loss to the tourism of India. In terms the losses faced by the tourism industry, due to the disaster are extensive as said by an official to Madhav (2013) that, "speaking on the possible losses...the season accounted for 30 per cent (around Rs 3,500 crore) of the tourism sector's annual earnings. Due to the calamity, they were witnessing 99 per cent cancellations from the affected travelers and from pre-bookings." (para.6). The cancellation of Char Dham Yatra for three years, the losses are unimaginable.

NDMA had initiated projects for flood mitigation and landslide mitigation at the national level in 2008. However, those projects have either been abandoned midway or are being redesigned because of poor planning. The projects to prepare national vulnerability atlases of landslides, floods and earthquake are also incomplete. Experts feel if such projects would have been implemented properly the damage in Uttarakhand could have been much less.

These unwanted natural disasters can be avoided through the implementation of destination management and several disaster management techniques. Further for

development four components can be followed :

### **1- Planning:**

The key element in planning the restoration project would require: conceptual modeling, site assessments, and cost estimation. A conceptual model details the structural aspects of the system that must be developed to meet the goals. In the case of Kedarnath an assessment of the destination must be made prior to any constructions made. Apart from this cost estimation is to be made at the end of the planning stage. Restoration managers must account for land acquisition, engineering design, and construction, among other factors.

### **2- Construction and Implementation:**

Projects that require less physical restructuring of the site are more likely to develop successfully without human intervention. Projects requiring more engineering to massively rework the site often have a higher degree of uncertainty. These factors are to address while restoring the disaster hit regions of Uttarakhand.

### **3- Assessment of Performance:**

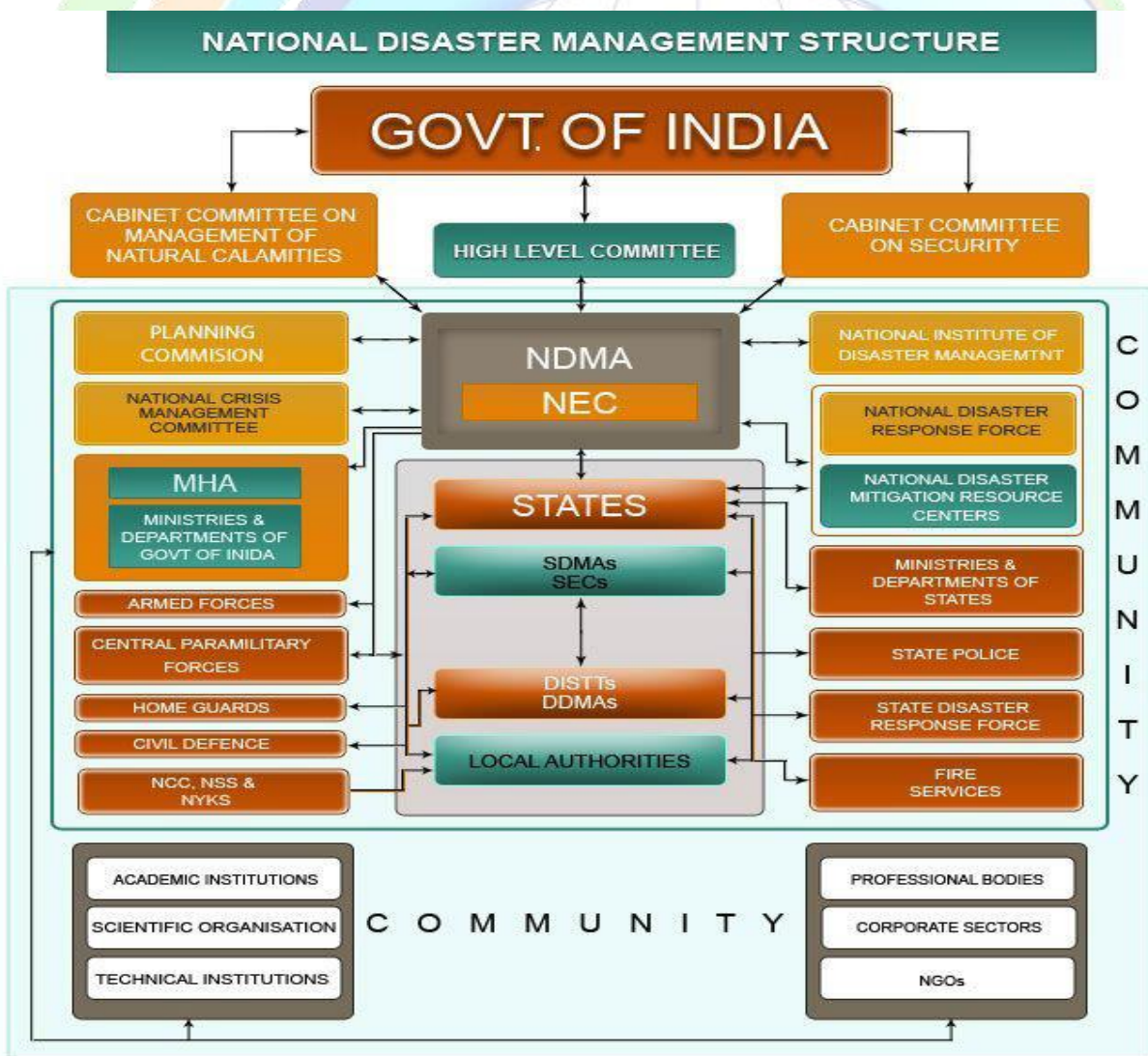
Post-implementation monitoring should focus on a parameter indicative of the original goal. There are numerous low-cost ways to effectively monitor a restoration project. Within the span of the three years there is a

need for continuous assessment to see to it that the destination is being restored as per the action plan and no deviations occur.

**4- Management of the System:**

Restoration management plans should be modified according to the principles of adaptive management, which is nothing but decision making in times of uncertainty, whereas policies and practices are altered

according to learning from outcomes. There by restoration policy can be understood well, depending on the application of alterations so as to accommodate changes if necessary. The Indian government disaster management failed to cope up with the flash flood at Uttrakhand and they form a new disaster management structure, the figure is as follows:



Source: <http://socialissuesindia.wordpress.com/>

As this climatic change effect combined with poorly planned development are taking lives and damaging properties with increasing frequency. Its hope that this new National disaster management structure planned will work innovatively in the coming future. The government is now fully equipped to fight with climatic disasters.

12k-cr-loss-for-uttarakhand-tourism-sector-survey/article4852866.ece

### References:

1. Pande, R. K. (2010), Flash flood disasters in Uttarakhand, Disaster Prevention and Management, Vol. 19 No. 5, pp. 565-570, [www.emeraldinsight.com/0965562.htm](http://www.emeraldinsight.com/0965562.htm)
2. Shankar, K. (2008). Wind, water, and Wi-Fi: New trends in community informatics and disaster management. *The Information Society*, 24(2), 116-120.
3. Shukla, S., S., (2013). Disaster Management: "Managing the Risk of Environmental Calamity", *International Journal of Scientific Engineering and Research*, Vol. 1, Issue 1, pp-12-18
4. Websites: [https://en.wikipedia.org/wiki/2013\\_North\\_India\\_floods](https://en.wikipedia.org/wiki/2013_North_India_floods)
5. [https://en.wikipedia.org/wiki/National\\_Disaster\\_Management\\_Authority\\_\(India\)](https://en.wikipedia.org/wiki/National_Disaster_Management_Authority_(India))
6. <http://www.thehindubusinessline.com/economy/floods-may-cause-rs->