

## DEVASTATING FLASH FLOODS IN UTTARAKHAND AND HIMACHAL PRADESH



The Himalayan states of Himachal Pradesh and Uttarakhand were hit by torrential rain and cloudbursts in certain locations on 14<sup>th</sup> through to 17<sup>th</sup> June 2013, recording the highest rainfall in 20 years in a three-day period, which triggered landslides and flash floods in multiple locations in these states. The erratic weather conditions have been attributed to early monsoons in Northern India. The Himalayan rivers (Ganges and its major tributaries of Alaknanda and Bhagirathi) swelled up as a result, and given the steep gradients in the mountains, the waters along with the silt and debris broke all bounds, gathered tremendous momentum and swept down as an inexorable force, causing widespread destruction in the region.

With no warning and time to evacuate, there have been a large number of fatalities and much distress among inhabitants and the many visitors to the region, which is a popular pilgrimage destination. The affected area is a particularly remote and environmentally fragile area, with limited transport connectivity. Following the disaster, with the few roads cut-off and bridges connecting key towns having collapsed, an estimated 70,000 pilgrims and tourists were stranded in the area. The total number of evacuees has been around 110,000. Number of fatalities is close to 5000; with those missing estimated at 4,700, the actual toll is expected to be much higher. Public infrastructures such as roads and vital bridges, houses and administrative buildings, schools and health centres, have been badly damaged. A state loss of INR 30,000 million has been estimated. The disaster has crippled the lives and livelihoods of a very large number of impoverished, rural people, with an estimated 20,36,000 people affected across nearly 40,000 sq. miles area.

As the rain continues unabated and fresh landslides triggered each day, response is proving difficult, and epidemics and social evils are beginning to break out. While rescue operations have now drawn to an end, long-term rehabilitation remains a concern for the local communities. Although several villages have been connected since the floods, 413 villages are still cut off and relief work continues even more than a month after the tragic event. More than half of these villages are suffering from lack of clean drinking water and other basic necessities. Hundreds of livestock in Uttarakhand have faced starvation, injury and even death. With disturbed access, lack of clarity on land allocation to affected families and complete relocation of villages, short working window before winters, rebuilding the lives and livelihoods of people remains a challenge.

Human	Infrastructural	Environmental
Estimated death toll of 5000, and 4700 missing across Uttarakhand; Estimated 1,10,000 people evacuated so far.	600 villages across Uttarkashi, Chamoli, Rudraprayag, Pithoragarh districts have had severe damage (washed away/submerged).	25-30 million tourists/pilgrims visit Uttarakhand each year, which is 2.5 times the population of the entire state.
Severe impact on livelihood; 19,590 business establishments devastated which translates to loss of over INR 5300 million.	760 villages are still absolutely cut off. Limited/intermittent road connectivity to reach supplies to 13,600 villages. 1,000 Bridges damaged.	60 hrs of cloudburst & continuous rain, leading to 330 mm of rain.
16 lakh people affected. 30,000+ households in severely affected villages are in dire need of food, water, shelter, medicines. Several injured, and threat of epidemics.	37,000 sq. miles area affected. Loss to economy is INR.30,000 million. 300+ villages face severe drinking water shortage; Primary Health Centres facing shortage of medicines.	70 Hydroelectric projects in worst-affected Char Dham area; 505 dams in Uttarakhand state. 4,640 cases of illegal mining

**Situation update – District-wise damage information in Uttarakhand:**

The area most affected comprises the four districts of Chamoli, Pithoragarh, Rudraprayag, and Uttarkashi, in the altitude range 7,000-11,000ft, with a population of 1,205,130. Both local inhabitants in the remote villages and pilgrims to the area were affected.

**Chamoli district** – Over 80 villages in this district have been affected. The worst affected villages are Pulna-Bhyundar, Pandukeshwar, Lambagarh, Narayanbagarh, Vinayak Chatti and Govindghat, and most of these villages have disturbed road access. Estimated 90 houses have been destroyed and over 700 people have been affected in these villages. Although many of them have been moved to Joshimath for safety, several villagers are still stranded in Pulna. Villages in Urgam valley viz. Devgram, Bansa, Barginda, Geera, Talla Barginda, Bharki, Beetha, Aroshi, Salna, Lyari Thenna, as well as Karchhi, Karchhoo, Mana, Bampa, Pharkiya, Gamshali, Mehergaon villages in Niti valley, and Salur, Dungra, Chain villages have disturbed access due to damaged roads, and over 1000 households face shortage of food and other essentials. 1435 mules and horses are reportedly stranded in the stretch between Govindghat to Hem Kund.

A fresh cloudburst on 8<sup>th</sup> July had rendered over 40 families homeless and 350 households damaged in the Urgam valley of the district. People have taken refuge in the Government Inter College at Urgam. Devgram, Bansa, Barginda, Palla Barginda and Kholi are among the villages with severe damage. Highly dependent on tourism, several people have lost their means of livelihood. Hydropower has long been a subject of controversy and received fresh stimulus as local villagers carried out demonstrations against constructions of too many dams in the area, which they believe is making the rivers angry.

The administration had set up relief centres at: Govt Inter College, Govt Girls' Inter College, Nagar Palika / Municipality Building in Joshimath; Garhwal Mandal Vikas Nigam (GMVN), GMVN Tourist Centre, Govindghat; and Hanuman Chatti. Currently 1 camp housing villagers from Pulna and Pandukeshwar at GMVN Tourist Centre is operational. Trekkers to the pilgrimage site of Hemkund Sahib and the nature-enthusiasts' destination of the Valley of Flowers, and to the temple town of Badrinath (11,000 ft.), have been evacuated by the army. 63 villages still remain inaccessible in the district (25 villages in Joshimath block and 38 in Tharali block).

**Uttarkashi district** - An estimate suggests that around 10,000 people have been affected in the district. There has been significant damage to property as well, due to the floodwaters as the rivers broke their bounds. 61 villages lying in the stretch between Uttarkashi to Gangotri, have suffered loss and damage. Among the worst affected villages are: Tiloth, Didsari, Jadau, Bhatwari, Sukhi, Jhala, Pilang, Gangori, Ujeli, Josiyara, Maneri, Sayanj, Kamakhani, Lagadi, Mandla, Gyansu, Bhatwari, Mukhwa, Bishenpur, and Dharali, have also suffered considerably. Several schools and ICDS centres have suffered moderate to severe damages. While some have started functioning in alternate locations, the longer distances and limited space available at the temporary settings prove to be major challenges for the students. Several villages are still facing encroachment of lands by the changing river courses and 121 villages have approached the administration for relocation of settlements. Due to long lasting agitations by the ANMs in the district, the health infrastructure in the district is struggling to cope with the immediate healthcare concerns. With 477 women expecting delivery in the month of August, maternal and child health is a major concern for the flood affected villages.

Due to damages in pipelines, several villages are facing drinking water crisis. Food is being provided to the tourists who are stranded, and since the roads are closed, the villages might face shortage of food in the days to come. There is no electricity in the villages and they are facing shortage of health staff. Similar to other flood affected areas in Uttarakhand, many villages in Uttarkashi though not severely affected, have no road access at present. Ankoli, Darsara, Agoda, Dhanpur, Gajoli, Naugaon and Feku are some villages that are cut off and locals are not being able to source food and other essentials. 135 villages are reportedly inaccessible in the district (62 villages in Bhatwari block, 15 each in Barkot and Mori block and 43 in Chinyalisaur block).

All tourists stranded in Harsil and Gangotri have been evacuated by the forces involved in relief efforts. Emergency relief centres were operating at Harshil, Uttarkashi and Chinyalisaur. People are now being shifted to rented accommodation or vacant government quarters in an effort to re-start the school operations. Road and bridges have been washed away at Tiloth, Maneri and Sukhi bandh and road is open till Gangori, a little beyond Uttarkashi town, and road re-construction in upper stretches towards Gangotri might spill over to next year.

**Pithoragarh district** - The worst affected villages in this district lie in Dharchula block. Nearly 3000 people in more than 10 villages in Dharchula block have been affected. The villages of Gothi, Jauljeebi, Balwakhot, Sovla bazaar, and Khet have suffered severe damage. 200-300 people in these villages need immediate relief supply. In Balwakot village, 50-60 people have lost their homes and are currently staying at an ashram (hermitage). 250 households in Pangla, and another 160 households from Tawaghat, Goti, Dharama, Johar, Ghalpani, Yelaghat, Sabda, Biyas, Chori, Ghattabagad and Baram villages, have suffered loss and damage; in Munsiyari block, 56 households in Madkot, and several others in Toli, Choribagad, Gorichal, Ghattabagad, Pangla, Danibagad and Malla Johar have also been severely affected.

Relief camps have been set up at Dharchula and the government and NGOs are providing food and other essential relief material. Road access is currently limited in most areas of Dharchula block and relief material have not reached the remote villages. As per recent reports, 141 villages are inaccessible in the district (56 in Dharchula block, 83 in Munsiyari block and 2 in Didihat block). However, the villages are accessible on foot.

**Rudraprayag District** - Rudraprayag is one of the most affected districts in Uttarakhand. The most affected blocks in the district are Ukhimath and Agastyamuni. More than 60 villages are badly affected in both these blocks. A total of 653 people are still missing as per the data released by the district officials in Rudraprayag. Many families have lost earning members in their families; some have lost their houses and life savings in the floods. There are villages that have lost significant number of youths in this tragic event and the young wives, old parents now remain in the families who have to fend for themselves. There are considerable losses to livelihoods, notably livestock and agricultural land and crops. While the situation is evolving, recent reports from the field show that in Kedarnath valley alone, villagers have lost approximately 2500 mules, which were used for transporting tourist to the religious sites. 1265 mules and horses are reportedly stranded in Kedarnath valley. Vast amount of agricultural land for which no current estimates are available are fully or partially submerged by the surging floodwater. The surging water of Bhagirathi River has completely washed away everything that came on its way. According to rough estimates released by local organizations more than 700 buildings that include houses, hotels, shops, schools and other historical and religious facilities have been completely washed away in the district.

Some of the villages that have suffered maximum loss in terms of lives and property are Trijugi Narayan, Kalimath, Badasu, Jal Talla, Jal Malla, Kotma, Nakot, Banayadi, Chandrapuri, Gangapur, Lamgoni, Devlibranigram and Chaumasi. As further assessments and verifications of villages continue, it is highly likely that this list will grow. Several schools in the area have been washed away or significantly damaged. While some have shifted to alternate locations as temporary measures, allocation of land and reconstruction remains major challenges for many of them. The villages between Agastyamuni and Guptkashi and stretches north of Guptkashi are completely cut off from the main areas. The water and electricity supply to these villages are completely disrupted due to the destruction of pipelines and electric poles. The road network between Agastyamuni and Guptkashi and beyond Guptkashi is severely damaged and the villages lying in between and beyond are inaccessible by road. They can be only reached by trekking through the hilly terrain. 74 villages in this district still remain inaccessible (51 in Ukhimath block, 15 in Agastyamuni block and 8 in Jakholi block).

#### **Situation update - District-wise damage information in Himachal Pradesh:**

As of now, flood damage has been reported from Kinnaur district only.

**Kinnaur district** - Around 300-400 families have been badly affected in the district. The worst affected villages are: Pangi, Broa, Tapri, Chagaon, Rarang, Kanam, Labrang, Namgia, Lippa, Pooh, Ropa, Gyabong, Sumnam, Thangi, Asrang, Moorang, Lippa. 135 households in Urni, Tapri, Meeru, and Yulla, have suffered considerable damage to their houses and have had to evacuate. Another 55 households in Yangpa, Katgaon and Huri villages have reported severe damages. Communities have been facing shortage of food and drinking water. The district has suffered heavy loss in terms of horticulture related livelihoods (hundreds of apple and apricot trees swept away or uprooted and land damaged). While the tourism sector has not suffered a severe blow, reviving the agro-based livelihoods could prove to be a challenge.

The district headquarter Reckong Peo is accessible through road. Road towards Pooh block is now open (with intermitted closures for road repairs) while few villages are still not reachable.

## **Relief and Rehabilitation Needs:**

Surveys by Pragma team members to determine the scale of destruction and the inputs required for rehabilitation and reconstruction have revealed the following:

### Immediate requirements are identified as:

- Medicines
- Clothes and Shoes
- Tarpaulins
- Utensils
- Water purifier/Water filters, Water storage facilities
- Nutrition supplements
- Burrowing Tools (shovels/spades)
- Blankets and mattress
- Food ration
- Tents
- Stoves and Cooking Fuel
- Medicines
- Torch/solar lamps/LED lamps, batteries

The assessment also revealed that the mudslides and debris brought by the floodwaters have completely destroyed houses, and farmlands in several villages and all standing crops and trees. Many households have lost all household goods and their animals, which were significant contributors to household income. Hence, these families would require monetary assistance for rebuilding houses, rehabilitating farmlands, and replacing the household goods they have lost in the calamity.

Further, many have been injured and disease and epidemics are threatening. Hence, healthcare, preventive and curative, has to be a priority. The affected area however is inadequately served by healthcare institutions and personnel however, and this is likely to prove a challenge.

**Pragma appeals to all those who can support by providing the necessary materials, and/or funds for the purchase and transportation of such materials to the affected people in the flood-torn Himalayas.**

*Note: People are being requested to avoid sending in used/old items.*