

In need of help

1. Livelihood of residents impacted as they depend on Tourism.

Recommendation: Suggest alternative models for earning livelihood.

Problem: The national media's focus on the plight of tourists has grossly distorted the true nature of the tragedy even in the Char Dham area. Many of the men who come from the villages in these valleys (and elsewhere) to earn a major part of their families' annual income on the yatra routes during the tourist season are missing and are feared dead. They help run the dhabas that line the entire 14 km trek route from GauriKund to Kedarnath; they sell raincoats, umbrellas, canes, soft drinks, water bottles, snacks and other supplies. On their backs, they carry children, the old, the infirm and tourists who are simply unfit and out of shape to walk the entire route. They run along the path with their ponies or horses carrying yatris. The tragedy of the families dependent on religious tourism for much of their annual income is compounded by the fact that the yatra season is over for the year, and is unlikely to resume even next year given the destruction of the roads and bridges in the upper reaches. Several thousand Char Dham valley families will now fall below the poverty line. Till the revival of the yatras, what will be the alternative sources of employment for the newly unemployed? Most likely we will see increased male outmigration from the region.

Solution:

Eco-tourism: Instead of herding millions of tourists along the yatra routes, the number of daily visitors to the shrines ought to be limited, as has been done for the Gangotri glacier trek at Gaumukh. Safe facilities can be developed for these limited numbers. Nature tourism can be encouraged taking advantage of scenic locations and tourists can be dispersed throughout the state. Nature lovers prefer trekking through forests and will happily forgo motorable roads right up to their destinations.

Community-based tourism: where local families host visitors and their youth act as guides, introducing the guests to scenic locations, local history, culture and foods can replace massive hotels and resorts. Uttarakhand and other Himalayan states have several functioning models of this approach.

Employment: Simultaneously, it is also necessary to reskill local people for non-farm employment. Uttarakhand has successful examples of mini dairies that sell milk through women's federations, business process outsourcing (BPO) ventures employing rural youth and CSOs that train people to repair mobile phones, make solar lanterns and photovoltaic panels. There is a growing need for tradesmen like electricians and plumbers in addition to the traditional ones like masons, carpenters or blacksmiths. Even traditional tradespersons need to polish and articulate their entrepreneurial skills in order to improve their earnings. Mahila Mandals or Van Panchayats can plant, own and manage forests to provide rural women with fuelwood and fodder at their doorsteps, recharge drying springs and streams, stabilise mountain slopes and provide a variety of minor products that can feed new local industries where the men can find employment instead of migrating to the plains in search of jobs. This is what the women of Uttarakhand had hoped for when they led the agitations for a separate mountain state.

2. Environmental degradation prior to floods due to pollution caused by tourists.

Recommendation: Pollution control/ precautions

In the 1990s, when the demand for a separate State gained momentum, Uttarakhandi people repeatedly described the special character of the region. Consciousness created by the pioneering Chipko Andolan raised the hopes of village women that their new State would pursue a green development path, where denuded slopes would be reforested, where fuel wood and fodder would be plentiful in their own village forests, where community ownership of these forests would provide their men with forest products-based employment near their villages instead of forcing them to migrate to the plains, where afforestation and watershed development would revive their dry springs and drying rain-fed rivers, and where the scourge of drunken, violent men would be overcome.

But in the 13 years after statehood, the leadership of the State has succumbed to the conventional model of development with its familiar and single-minded goal of creating monetary wealth. With utter disregard for the State's mountain character and its delicate ecosystems, successive governments have blindly pushed roads, dams, tunnels, bridges and unsafe buildings even in the most fragile regions.

In the process, denuded mountains have remained deforested, roads designed to minimise expenditure rather than enhance safety have endangered human lives, tunnels blasted into mountainsides have further weakened the fragile slopes and dried up springs, ill-conceived hydropower projects have destroyed rivers and their ecosystems, and hotels and land developers have encroached on river banks.

Very few have benefitted from these projects— mainly in the towns and cities of the southern *terai* plains and valleys where production investments have concentrated. In the mountain villages, agricultural production has shrivelled, women still trudge the mountain slopes in search of fodder, fuel wood and water, and entire families wait longingly for an opportunity to escape to the plains.

3. Housing facilities.

Recommendation: Cheap, instant housing

Homeless families desperately need durable mid-term shelters to protect them from both wild animals and the monsoon rains. It will take them at least two years to rebuild permanent homes. Since the 1999 earthquake in Chamoli, voluntary organisations in Uttarakhand have built almost 1,000 shelters that beneficiaries have used for years. Similar structures are also required to get schools reopened – a vital part of restoring confidence in children. Sturdy tents, however, may be the only option for the present in villages where access is cut off.

4. Electricity:

There is no electricity in the affected areas. The vast majority of planned hydroelectric power projects (HEPs) are still to get off the ground.

5. Sanitation & clean-up drives.

Begin the task of removing debris from homes and fields in villages hit by rockslides.

6. Missing people.

Recommendation: telecom or internet based person finder application.

Many still hope for their missing relatives to turn up. Incidents of trafficking are high in this region. So it is imperative that the missing children are found.

7. Education

Education of the children has been put on hold for now as buildings have been destroyed. We would need to take stock of how many teachers are there in each area which is cut off and start something like a Teach for India campaign in that region.

8. Agriculture & Livestock

After Independence, mountain agriculture was grossly neglected because it did not generate significant surpluses, forcing many people to abandon it and for the men to migrate out. Now, Irrigation channels for the farmers have been disrupted. Their fields washed away. In these areas people largely grow potatoes and, in some areas, apples. The floods damaged the ready crops and destroyed the fertile land. What was once a farm is now sand and silt. Often, people here have smaller pieces of land that are good enough to grow for mostly their own consumption.

Two, locals estimate that 5,000 mules have died in the Kedarnath area alone. This was the peak tourist season and people from all across had come with their mules to earn more. In these areas, the mules used to be the biggest source of employment and transportation. A mule is a big asset for a family and costs anywhere between Rs 60,000 to Rs 1 lakh. Also, mules like to walk in pairs on the tracks so people who owned a pair are likely to have lost both.

With less mules available, even if a farmer wants to hire one for bringing down his potato to the local market, the hiring cost of a mule is much higher than the cost of potato. What do you do then? Many people who had bought their mules with loans (from the unorganised sector) are now stuck with a mountain of interest as well.

These states have tremendous potential to produce niche crops taking advantage of their locations and climates. A combination of plentiful fodder from nearby forests and therefore dung to fertilise the fields, irrigation, supply of credit and new knowledge inputs like the system of crop intensification can ensure food and livelihoods security to farming families. Seed banks are already available in Uttarakhand.

9. Landslides:

The unpredictable weather in Uttarakhand coupled with landslides is hindering the provision of relief materials to the villagers. Just two weeks after the disaster, we heard that around 200 trucks were parked on the highways all across the state and relief materials were just sitting and rotting. The area is not accessible even by small vehicles. The unplanned nature of the rescue has led to a wastage of food, even though it was done with all goodness of the heart. so far, Goonj has sent over 30 truckloads of materials into the deep areas. In some parts the porters charge Rs 600 to Rs 1,000 for carrying 25 kg, which is much more than the cost of the materials themselves. But right now these men are the only ones who can carry on in these angry mountains. They trek for six to eight hours, deliver the materials and come back.

10. Failure of early warning systems:

Recommendation: Foolproof, more engaging warning system.

The warnings given by the meteorology department went unheeded. Green development must include specific actions to reduce the impact of disasters in the Himalayan states. Better early warning systems have to be set up. There will be a tendency to focus on technical gadgets. But these will have to be supplemented by community-based efforts. Nepal has evolved successful community-based early warning systems for flood disasters. There are important lessons to be learnt from our smaller Himalayan neighbour.

11. No protocol for Disaster management:

Uttarakhand has to make its elaborate but moribund disaster management structure functional. The basic features of the Disaster Management Act (DMA) 2005 have not been implemented. Earlier this year, the CAG revealed that the Uttarakhand State Disaster Management Authority (SDMA), constituted in 2007, had not formulated any rules, regulations, policies or guidelines for disaster management. Though a state executive committee was constituted in 2008 to advise SDMA, it had never met since its creation. Not surprisingly Uttarakhand has not even prepared the state disaster management plan mandated by the DMA.

Problems not related to the 2013 floods:

- **Water Conservation:** Given that some of India's most important rivers originate here, it is ironic that water conservation remains a burning issue in Uttarakhand. A large number of natural springs that dotted the hillside have been damaged due to the cutting of slopes for road building, dam construction or other unplanned activities. These have adversely affected the underground water table at many places.
- **Forest degradation:** Every summer, hundreds of hectares of forests are affected by forest fires. Wild fires lead to loss of human lives and wildlife species and also cause damage to the ecosystem. Almost every forest fire is caused by human beings. Some areas are set afire by local communities to reduce grass on the forest floor. Many fires are caused by travellers throwing cigarette butts on roads passing through forests. The protection of forests remains a constant challenge. Encroachments, illegal tree felling and unregulated collection of forest products are also responsible for damage to forests. Many wildlife corridors have been choked due to unplanned development and this also contributes to increased human-wildlife conflict. The Ministry of Environment and Forests data reveals that over 30,500 hectares of forests have been diverted to non-forest use in Uttarakhand since the formation of the state in 2000. Over 60% of the diversions have been for road construction and power projects, primarily in Uttarkashi, Rudraprayag, Chamoli and Pithoragarh districts, the ones most affected by the present disaster. And this is only the beginning.
- **Non-biodegradable waste:** Today, even remote hill villages have a 'Noodle Point' selling packaged food, soft drinks and water in plastic bottles. A lot of this waste is carelessly strewn across natural trails and campsites. If burnt, they release harmful chemicals into the atmosphere. Counter this with the mantra of 'reduce, reuse & recycle'. If visitors carried back empty bottles and packaging waste, it would go a long way towards keeping our wilderness pristine. How to make the visitor Could be set up recycling points for plastics and also, persuade companies to take back the e-waste?
- **Illegal wildlife trade:** Illegal products made of fur, bones, glands, tusks, feathers etc of endangered species, are offered to unsuspecting buyers as souvenirs and local produce. Can we do something to create awareness and/or provide some way to distinguish the fakes from the original to help protect the wildlife resources of the region?

Solutions:

Forest cover has to be expanded, river flows and ecologies have to be sustained and wildlife has to be protected in a manner that enables livelihoods to grow. For protecting existing forests, village women should receive free cooking gas cylinders at their homes in payment for providing ecological services to the rest of India. Such payments can generate revenues for Himalayan states that pursue green development policies.

Immediate Tasks

There is a mountain of work for all the tiers of government – from the centre to the state and the panchayats – and for civil society organisations (CSOs) and others.

1. The first priority now is to finish the task of supplying at least three months worth of rations to villages that remain cut off from access roads.
2. Simultaneously, the state Public Works Department (PWD) and the BRO have to repair roads and paths to transport relief and reconstruction supplies.
3. Revenue department officials must assess individual family losses and deliver the compensations due to them. Senior government officers must quickly fill staff vacancies at all levels to tackle the crisis.
4. Many new field terraces may have to be constructed in villages hit by rockslides.

Terraced Fields of Garhwal Uttarakhand

Source:

1. <http://www.epw.in/commentary/restoring-normalcy-uttarakhand.html>

2. <http://www.thehindu.com/opinion/lead/the-untold-story-from-uttarakhand/article4847166.ece>