



# Seasonal Disaster Review

Monsoon related disasters in Nepal

(08 June to 05 October 2018)

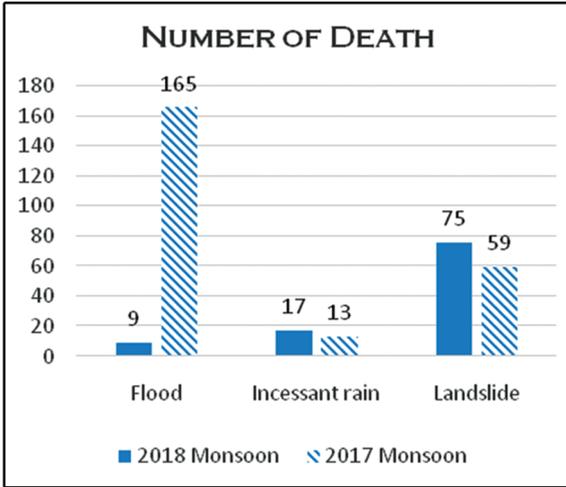


Government of Nepal  
**Ministry of Home Affairs**  
Singhadurbar, Kathmandu, Nepal

# Seasonal Disaster Review

## Monsoon related disasters in Nepal

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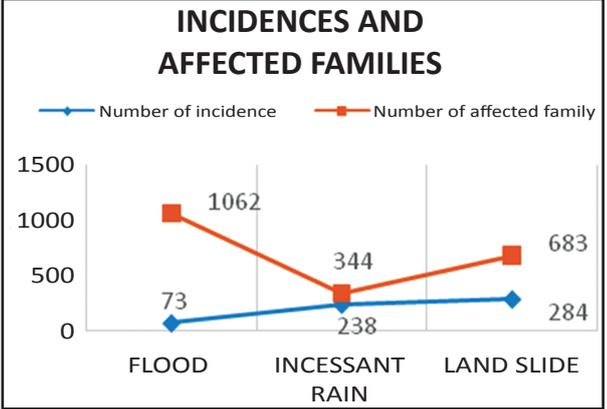


- ### Loss
- 101 people lost their lives
  - 167 people injured
  - 595 incidences recorded
  - 769 livestock loss
  - landslides claimed lives and property the most



**Damage NPR**  
**185,638,560.00**  
 estimated loss

**338**  
 Houses completely damaged



**NPR**  
**14,823,661.00**  
 cash distributes as relief support

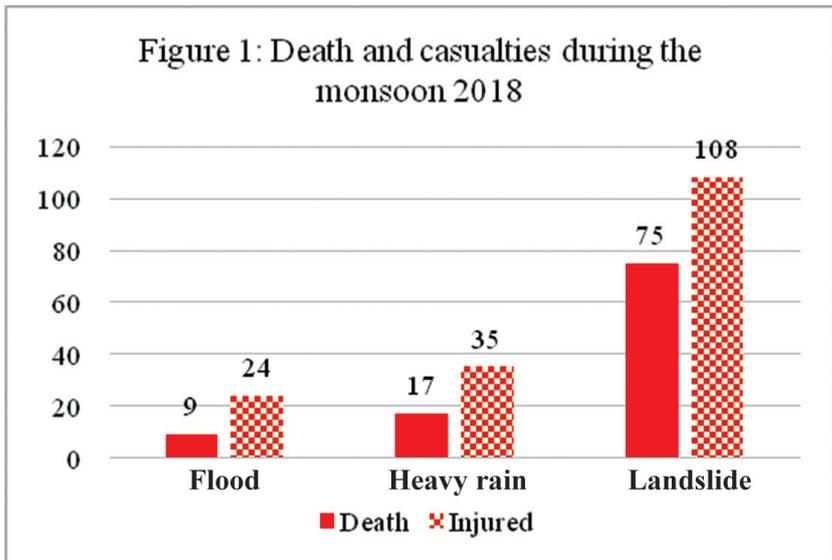


## Monsoon Brief

This year, monsoon started on 08 June and remained active for 120 days till 05 October 2018 as per the Department of Hydrology and Meteorology. During the monsoon cloudbursts, landslides and floods were the leading disasters in terms of death toll, injuries, displacements and loss of property.

### Casualties and losses

The reported incidence of flood, heavy rain and landslides was 595 and death toll reached to 101 during the monsoon period (see Figure 1). The incidences affected 2003 families directly. More than 1,100 houses were destroyed or partially damaged displacing people temporarily or rendering many homeless.



Source: MoHA, 2018

The incessant rainfall triggered landslides and the recorded incidents counted to 284. The most affected districts were Rasuwa, Jajarkot, Lamjung, Gorkha, Bajhang, Nuwakot, Baglung, Salyan, Rukum west, Rolpa, Bajura, Myagdi, Okhaldhunga,

Taplejung and Shankhuwasabha. Flood and inundation affected the Terai plain where Sunsari, Nawalparasi, Saptari, Morang, Jhapa and Kailali had the highest number of affected population. Heavy rain caused by cloudbursts claimed lives of 17 people and 344 families were affected directly.

Property worth NPR 185,638,560 was damaged by disasters occurred during the period. Loss on livestock, productive land, assets, and damage to critical infrastructure severely affected livelihoods.

## Reponses and relief

The Government of Nepal mobilized its response and relief mechanism for immediate response to disasters during this monsoon too. Coordination and engagement of the provincial governments and local level and security forces was critical enabling factors for speedy response and relief support to the affected people. Search and rescue equipment and teams of the security forces were deployed immediately that helped to save lives of many people. Mobilization of volunteers provided important support in response and relief works.

In term of cash, NPR14,823,661 was provided to the affected families as a relief support from the government through District Administration Offices.

Tarpaulin sheet, clothes, sanitation and hygiene kits, medicines and related food items were distributed locally as per the immediate need in coordination with the supporting agencies and individuals.

## Preparedness

Water-related disasters are mostly seasonal in nature in Nepal too. Monsoon preparedness initiatives including pre-monsoon workshops were carried out throughout the vulnerable areas and districts. Pre-monsoon preparedness activities were included in

the Disaster Preparedness and Response Plan of the respective district as per the Monsoon Emergency Work Plan, 2075. Some of the local levels have prepared disaster response plan whereas others have included the periodic disaster risk reduction and response related activities in their plan. Clusters updated their contingency plans. Simulation exercises increased level of risk perception and sensitized vulnerable groups on safety measures and response mechanism. Monitoring, forecasting and early warning system was focus on mass awareness and readiness to respond quickly.

The stockpile of emergency items were utilized for the immediate rescue and response. The inventory of heavy equipment at district level accelerated the response work. DAO and local levels coordinated the emergency response with the support of stakeholders. The quick and effective responses to disaster helped to reduce the impact of disaster in terms of saving lives and property.

Below are a few representative cases of disaster and preparedness initiatives that worked well in reducing impacts of the disasters.

### **Case I: Disaster creating a hazard**

The *Bodyguar* River in Baglung turned to a big lake all of a sudden when *TurtureDanda* started to slide in the river. The landslide buried two houses along its way. The artificial lake submerged a part of the Mid-Hill Highway for days. The lake expanded to 2.5 km in length and 50m in breadth.

The suddenly created lake put the threat of abrupt outbreak creating a panic in settlements downstream along the river. An alert message was passed to the vulnerable population through mass media and updated status of the river-turned-lake regularly. The lake overflow continued the water downstream after hours. The families were rescued immediately and managed temporary shelter in their relatives' houses. The local municipality supported to build new houses of the affected families.

Now, the detail geological study of the lake is planned that will inform the local stakeholders to decide whether to dry-up the lake or let it remained as a scenic beauty.

## Case II: Inundation in Bhaktapur

The incessant rains for two consecutive days from 11 June 2018 triggered inundation in Bhaktapur. Emergency team rescued more than one hundred people from the submerged settlements. Houses, sheds, factories, shops, schools, hospitals, a bridge and a road were submerged. Property worth millions was damaged by the inundation.

Such an inundation in Bhaktapur was first of its kind and scale as per the experience of the local communities. The occurrence of the disaster is sudden in nature but the cause is being accumulated for longer time. The low lying areas were waterlogged as there was insufficient outlet for swollen rivers. Lack of mainstreaming of disaster risk reduction in development plan especially construction of houses and roads fueled the hazards to turn havoc. The disaster impact would be lowered if the construction plan had adapted risk sensitive approach.

## Case III: Development and disaster nexus

Vehicular movement between Lamjung and Manang got disconnected for 18 days when the part of Besisahar and Chame road was swept away at Marsyangdi Rural Municipality. The section spanning 3 Km was destroyed by landslides. The section of the road had not seen such interruptions before. The incessant rain for days caused the slide of *GhopteBhir* causing the damage. It affected the local economy and added financial burden of reinvestment in reconstruction of the section of the road.

Adaption of efficient disaster preventive methods while constructing the road would have prevented the disaster at all or reduce the associated impacts.

## **Case IV: Exposure to hazards intensified the impact**

During this monsoon, Nuwakot experienced many landslides. Most of the landslides were triggered by incessant rain while the then Ghayangphedi (now Dupcheshwor) had to deal with dry landslides. The steep terrain above fell on the settlements and buried 11 houses and damaged 33 houses. The disaster displaced 110 families whereas the immediate escape from the exposed area saved lives of many. Socio-economic loss was significantly high.

The geological strength of the steep hill was further weakened by the 2015 earthquakes and aftershocks. The settlements were highly vulnerable to landslides, yet the timely precaution would have reduced the risk. Relocation of the settlements would have prevented the loss occurred. Risk sensitive land use planning based on exposure is the way to reduce such disasters.

## **Case V: Local level's support facilitated the recovery quickly**

Many families were left homeless within hours of incessant rain in Jajarkot. During this monsoon, 26 houses were swept away by swollen rivers and 38 families were displaced for days. District Administration Office and District Disaster Management Committee provided the immediate relief for the displaced people. Cash and emergency items were provided as an immediate relief.

The local levels have been supporting the homeless families to build back their houses. Cash and kind supports were collected from stakeholders and individuals too for the speedy recovery from the disaster.

## **Case VI: Emergency communication accelerated response**

Rasuwa, a mountainous district is vulnerable to landslides as indicated by the geo-hazard survey carried out by Nepal

Reconstruction Authority and the then Ministry of Federal Affairs and Local Development of Nepal.

This monsoon triggered landslides in three places took life of 9 people. Although, the spots were relatively less prone to landslides as indicated by the geo-hazard survey, the sudden onset disaster destroyed 15 houses partially or completely. Among the affected families, five were displaced.

The District Administration Office (DAO) and the District Disaster Management Committee coordinated the response and relief activity. The group messaging system initiated in the district recently worked out significantly that escalated the immediate response effectively. The SMS system informed the stakeholders immediately within minutes, then the willingness to support gathered quickly.

The displaced families owned fallow land nearby, where they build their house with the support of stakeholders. The DAO facilitated and coordinated the support to build back their houses.

The hard earned lesson during effective recovery has been incorporated in District Preparedness and Response Plan prepared by the District Disaster Management Committee. It urges related stakeholders including local non-government organization to prepare programme and the bigger private establishments to allocate budget under their corporate social responsibility.

## **Case VII: Mitigation measures on time saves settlements from flooding**

As a regular exercise towards risk mitigation and preparedness, District Disaster Management Committee and District Administration Office assessed the local vulnerability and prepared monsoon preparedness and response plan. The clusters updated their contingency plan as per the risk assessment and

included in response plan. The simulation exercise was also performed to aware the population at risk. Based on the gap analysis, emergency items were purchased and stockpile was maintained in the local levels.

Flooding in Bardiya is a regular disaster caused due to swollen Babai. With the onset of monsoon, more than 100 houses of Gulariya-10 were at high risk of flooding this year. DAO, DDMC, the Babai Bhada Aurahi River Management Project, security agencies, local levels and community worked together to build protection wall immediately.

The gabion wall prevented the river eroding its bank and thus protected the settlement from recurring seasonal flooding. A small scale investment in immediate build-up of embankment of few meters not only saved the nearby road linking Banke to Bardiya, but also lives and property of many people.

### **Case VIII: Integrated response saves children from acute malnutrition**

In the evening of 27 August 2018, the Saptakoshi river entered to six wards of Hanumannagar Kankalini Municipality (ward no. 5, 6, 7, 9, 11 and 12) and two wards of TilathiKoiladi Rural Municipality (ward no. 4 and 5) inundating about 540 households.

Hanumannagar Kankalini and Tilathi Koiladi Palikas and District Disaster Management Committee (DDMC) work in collaboration with Health, Nutrition, WASH, Education and Child Protection cluster for immediate relief. A technical team screened the nutrition and health status and kept vigilance on nutrition level of the children, pregnant and lactating women. A total of 264 children of age 6-59 months were examined and provided counselling and essential commodities related to nutrition. This integrated effort helped save vulnerable groups from acute malnutrition during the emergency.

## Annex 1: Monsoon related disasters summary (Districts where highest number of death occurred)

S.N	District	No. of Incidents	Dead			Affected Family	Houses Destroyed		Estimated Losses
			Male	Female	Total		Partial	Complete	
1	Rasuwa	9	9	3	12	43	7	5	15750000
2	Jajarkot	16	4	7	11	28	5	12	2116000
3	Salyan	5	4	5	9	7	6	8	0
4	Dhading	11	3	5	8	24	1	20	1550000
5	Baglung	21	1	6	7	41	12	18	15075000
6	Rolpa	15	1	5	6	18	3	6	400000
7	Bajhang	2	3	2	5	3	0	1	0
8	Gorkha	21	1	3	4	51	13	6	3847000
9	Lamjung	11	1	3	4	25	1	11	900000
10	Okhaldhunga	7	2	2	4	34	9	2	0
11	Bhaktapur	10	1	2	3	12	4	5	2784700
12	Bardiya	4	1	1	2	27	27	0	150000
13	Dolpa	17	2	0	2	26	8	13	5067000
14	Humla	36	0	2	2	51	18	25	11927300

15	Kailali	5	0	2	2	84	82	1	0
16	Nuwakot	25	1	1	2	67	11	25	15379000
17	Parsa	2	1	1	2	5	0	2	0
18	Pyuthan	2	2	0	2	2	0	0	0
19	Shankhuwasabha	20	2	0	2	49	3	2	8665000
20	Tanahu	3	0	2	2	3	0	0	0
21	Bajura	8	0	1	1	16	4	8	209000
22	Bara	6	1	0	1	15	10	5	930000
23	Chitawan	3	1	0	1	4	0	1	0
24	Dadeldhura	18	1	0	1	36	31	0	0
25	Darchula	5	1	0	1	17	0	6	0
26	Kavrepalanchowk	13	1	0	1	25	12	10	6450000
27	Mugu	2	0	1	1	5	0	0	0
28	Myagdi	7	0	1	1	11	1	6	0
29	Parbat	8	1	0	1	16	0	13	3025000
30	Sunsari	5	1	0	1	150	0	2	500000
31	Terhathum	5	1	0	1	5	0	1	1250000
32	Udayapur	2	0	1	1	2	0	0	0

# विपद् पूर्वतयारी, हामी सबैको जिम्मेवारी

## Monsoon Related Disasters Jeth 25 to Asoj 19, 2075 (June 08 to October 05, 2018)

