

Introduction and Background

Objective

This report presents findings from a field visit conducted in the aftermath of the cloudburst-induced landslide and flood that struck North Bengal in October 2025. Three locations in Kalimpong, Darjeeling, and Alipurduar districts were respectively visited in the month of January to assess the impact of the disaster. The primary objective was to conduct a rapid assessment of the disaster's impact on affected communities, and to gauge the effectiveness of relief distribution efforts from Jaladarsha with the aid of local organisations.

The visit aimed to:

- Document the nature and extent of damage to housing, infrastructure, livelihoods, and water sources through direct observation;
- Understand the plausible contributing factors causing this disaster combining conversations with local community and information from reports and news articles;
- Engage with affected recipients to capture their experiences, immediate needs, and perceptions of the relief response; and
- Formulate actionable recommendations to enhance preparedness for future extreme weather events in the region.

The Disaster

The night of October 3 marked the beginning of a relentless spell of rain across the foothills of North Bengal. Widespread landslides and flooding flowed suit that devastated large parts of Darjeeling, Kalimpong, and the Dooars region. The steep terrain and loose soil composition worsened the impact, with hillsides collapsing and numerous rivers including the Teesta, Torsha, and Jaldhaka overflowing their banks.

The scale of destruction was immense. A senior official from the north Bengal administration confirmed close to a hundred landslides in Darjeeling and adjoining Kalimpong, including thirty-five major ones¹. Roads were washed away and bridges collapsed, leaving many remote villages cut off. National Highway 10 and Rohini Road, which connect Darjeeling to Siliguri, were closed after the devastation, with Sikkim largely cut off. In Jalpaiguri, the wooden bridge on the Holong river collapsed².

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<https://www.downtoearth.org.in/climate-change/extreme-rainfall-nearly-100-landslides-cause-17-deaths-in-north-bengal-sikkim-almost-cut-off>

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<https://www.downtoearth.org.in/climate-change/extreme-rainfall-nearly-100-landslides-cause-17-deaths-in-north-bengal-sikkim-almost-cut-off>

Over 6,000 households were affected across the region³. According to the National Disaster Response Force and district administrations in Darjeeling and Jalpaiguri, the death toll rose to thirty-nine across the hills, Terai, and Dooars, with several people still reported missing⁴. Entire areas were devastated by the disaster, including Mirik Sub-division, Sukhia Pokhri in Darjeeling, Lava and Pedong blocks in Kalimpong, and Bamandanga–Tudu in Jalpaiguri.

Livelihoods suffered heavily as well, with massive loss of livestock, cash crops, and seasonal vegetables. The flooding also reached Gorumara and Jaldapara national parks, where reports indicated that animals, including rhinos and deer, were swept away by the swirling waters⁵.

Locations

The team visited three locations namely Kagey in Kalimpong, Mirik in Darjeeling, and Bamandanga in Alipurduar district. An internal assessment by the local organisations revealed that these are one of the most vulnerable and remote areas where sufficient relief had not yet reached.

Kagey

Kagey is a small hamlet located beside the Mudung River. The village hosts some 50 odd families. The village was enormously affected during the cloudburst with crops and houses destroyed and livestock washed away. According to locals two of the villagers were missing during the time of the visit.

Mirik

Mirik is a famous tourist destination in Darjeeling. We visited a small area called Nandagaon in Mirik. Many landslides hit Mirik during the disaster many households got destroyed. During our visit with the relief materials, one family was still living in the community centre. Many families from near by areas had come to get the relief including elderly women.

Bamandanga

Bamandanga in Alipurduar is a model village where many tea garden worker families have been settled down. The village is situated in the flood plain of the Jaldhaka river. The river overflowed due to the torrential rain and the water coming from the overflowing Tala dam, according to locals. During our visit, the village stood devastated from the flood. Many households were completely washed away, the others showed signs of being completely underwater during the flood. The adjoining village Tandu were hugely affected with many people either dead or missing.

³

<https://reliefweb.int/report/india/local-situation-report-darjeeling-floods-and-landslides-2025-09-october-2025>

⁴ <https://ddnews.gov.in/en/north-bengal-landslides-death-toll-rises-to-39-rescue-efforts-continue/>

⁵

<https://www.telegraphindia.com/west-bengal/in-peak-tourism-season-death-comes-tumbling-23-die-as-rain-landslips-flatten-north-bengal-prnt/cid/2126309>

Plausible Reasons

The devastation caused by the cloudburst and subsequent flooding in North Bengal cannot be attributed to heavy rainfall alone. Experts and local people have pointed to several factors including meteorological anomalies, unchecked construction, and systemic environmental neglect that together have led to the disaster.

Meteorological factors

The unexpected trajectory of a low-pressure system played a crucial role in the intensity of the rainfall. The system, which formed over the Bay of Bengal on September 30, made landfall as a depression and was initially moving north-northwest towards Chhattisgarh. However, it suddenly recurved towards north Bihar, bringing it dangerously close to north Bengal. Experts explained that strong westerly winds, typical of the retreating monsoon, diverted the system from its usual path into central India. While such recurving is not unprecedented, it was unexpected and brought concentrated rainfall to the region⁶.

The rainfall figures were staggering. Darjeeling recorded 261mm of rain in the 24 hours ending 8 am on Sunday, followed by Cooch Behar with 192mm, Jalpaiguri with 172mm, and Bagdogra-Siliguri with 134mm. Sourish Bandopadhyay, a scientist at the regional meteorological centre, noted that extremely heavy rain, exceeding 200mm in around 24 hours, occurred in parts of Darjeeling, Alipurduar, Kalimpong, and Jalpaiguri on Friday and Saturday, with intensity reducing only by Sunday⁷.

Adding to the deluge was water flowing from neighbouring regions. Excess water from rivers entering Bengal from Sikkim and Bhutan worsened the devastation. Earlier on Sunday, the National Centre for Hydrology and Meteorology in Bhutan had issued an alert stating that the gates of the Tala hydropower project's dam could not be opened and the dam was overflowing⁸.

Environmental and construction violations

Beyond the meteorological factors, experts pointed to deep-rooted environmental violations that amplified the disaster. Partha Pratim Biswas, professor of construction engineering at Jadavpur University, noted that the growing craze for off-beat tourist destinations has fuelled unregulated construction of hotels and homestays right beside rivers⁹.

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<https://timesofindia.indiatimes.com/india/bengal-floods-trajectory-change-of-low-pressure-system-led-to-havoc/articleshow/124328070.cms>

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<https://timesofindia.indiatimes.com/india/bengal-floods-trajectory-change-of-low-pressure-system-led-to-havoc/articleshow/124328070.cms>

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<https://www.telegraphindia.com/west-bengal/in-peak-tourism-season-death-comes-tumbling-23-die-as-rain-landslides-flatten-north-bengal-prnt/cid/2126309>

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<https://www.thehindu.com/news/national/west-bengal/unregulated-constructionand-tourismbehindfloods-and-landslides-in-north-bengal-warn-experts/article70229327.ece>

Professor Biswas also highlighted the critical role of deforestation. Trees, he explained, act as natural geo reinforcements, their roots binding the fragile mountain soil and preventing erosion and landslides. With deforestation becoming common to ease construction of houses and hotels, the mountains have become increasingly unstable. He warned that heavy construction on steep slopes makes both the hills and the structures unstable, and when rain comes, the entire structure can slide and be crushed¹⁰. Locals have also expressed the possibility of excessive plastic usage for soil erosion in the region. As plastic contamination in soil would prevent life growth.

Blocked drainage and reduced carrying capacity

The natural drainage system of the mountains has been severely compromised. Rivers, streams, and waterfalls serve as the natural drainage for mountainous terrain, but experts and locals said these are being blocked or rerouted due to construction and heavy silt deposition. Once blocked, flash floods can occur easily because the carrying capacity of water bodies is reduced.

Indrajit Roy Chowdhury, assistant professor of geography at North Bengal University, warned that at least 200 metres along both sides of a river is supposed to be a River Regulated Zone to ensure natural flow and ecology and maintain flood-carrying capacity. When construction happens within this zone, he said, it is inevitable that when the river swells, it will wash away the inhabitants and houses built on the riverbed¹¹.

He also pointed to the impact of hydropower projects. In an attempt to promote renewable energy, the construction of dams along the Teesta River has reduced its carrying capacity, further exacerbating flood risks.

Climate change and rainfall patterns

Experts along with local communities also noted that rainfall patterns are changing due to global warming and climate change, leading to unprecedented heavy rains within short periods. Such intense bursts of rainfall, they said, are becoming more frequent.

Highway and Tunnel Construction

Along experts some locals have pointed to the construction roads and tunnels in the mountains using vibratory tools that destabilizes the rocks and make the area more landslide prone.

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<https://www.thehindu.com/news/national/west-bengal/unregulated-constructionand-tourismbehindfloods-and-landslides-in-north-bengal-warn-experts/article70229327.ece>

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<https://www.thehindu.com/news/national/west-bengal/unregulated-constructionand-tourismbehindfloods-and-landslides-in-north-bengal-warn-experts/article70229327.ece>

Methodology

Due to time constraints, we focused on a rapid assessment of the situation. We mostly relied on conversations with common people and local organisations, unstructured interviews, and field observations.

Relief was distributed through the Himalayan Social Welfare Society in Kalimpong, Mirik, and Bamandanga, and the Umul Collective in Bamandanga. Coordination was done through local members, and our youth team conducted several assessments in the field to determine who needed the most help and what kind of assistance was most needed. Following this, we selected relief coordinators for Kalimpong and Bamandanga. We made follow-up calls with them to ensure that flood-affected people received the appropriate assistance. The coordinators' field visits, conversations with people, coordination with vendors, documentation of relief work, and the distribution process often changed, leading to long delays. We prioritized the health and well-being of the people in the relief program. Our team visited Kagey and Mirik during the relief distribution. We talked to many of the villagers gathered and interviewed some including local Panchayet members in Mirik.

In Bamandanga a post-relief visit was done. Along with field observations, unstructured interviews were conducted here to gather information. The data is then analysed by the team and presented in the report.

Field Findings

Kagey

According to field reports the Kagey and nearby villages took a massive hit from the cloudburst and subsequent landslide. The entire village was somehow or the other impacted. Many people rely on kitchen gardens and small patches of land for crop cultivation there. The crops along with domestic cattle and poultry also got washed away.

One of the locals, Harka Bahadur Rai, claimed that he saw the hills around Kagey vehemently shaking on the night of the disaster. Most people have kutcha houses made of mud and bamboo, that collapsed against the flooding. During our visit, two people were reported dead during the landslide by the locals.

Gita Chettri, whose house was demolished in the landslide, said the construction of a highway (possibly NH717A) near the village has a huge indirect contribution to the landslides. "Bulldozers and vibratory tools", used in the construction has destabilises the rock settlements in the mountains. Moreover, during the construction the impact of the construction in the vicinity has not been clearly calculated, according to another local.

Where the highway has touched people's settlements compensations were given but those lying a little further have not been considered. Government aid was scarce and insufficient and proper execution of was found aid distribution was found wanting. The absence of a panchayet in the area for 23 years has aggravated the situation further.

Another resident, Kamala Rai, said in her 20 years of marriage (when she started living in Kagey) she has never seen such a devastating landslide. 200 decimal of her paddy

cultivation was completely destroyed. Yet another person from that area has pointed to the merging of several smaller stream into one for highway construction has reduced the carrying capacity of the streams and resulted into flood when the rain was heavy.



Interview with locals whose house got demolished in the landslide.



Interview with locals.



NH717 taken from Kagey.

Mirik

Our team visited Nandalgaon under Pahila Gaon School Dara II GP in Mirik block. The entire block was severely hit by multiple landslides and flood. Many of the residents of the village are present or former tea garden workers without any land in their name. The drainage of the area has been pointed out as a major concern by the locals. Many *kholas* (streams) are reported to being blocked and silted causing floods.

Nirja Subba, a septuagenarian tea garden worker from the adjacent Chadraman village under the same GP said that her house is half damaged. She has received one instalment (60k) of the compensation money given by the Government to rebuild her house. However, the houses are not modelled keeping in mind the landscape and environmental risks in that area. She wants a protection wall but fears without that they will be completely destroyed this monsoon.

A family of four was residing in the village community centre during our visit since their house was completely washed away in the flood. One family member, Sushmita Rai said she has heard of such floods from her parents but for the first time she experienced this kind of devastation. Her mother-in-law was a tea garden worker and her husband, Rana Rai was a taxi driver, both out of work at that moment. No aid came from the tea garden authority her

mother-in-law worked in. They are making a house with the relief money received from the Government in a patch of land offered by one of their relatives. The community centre has no toilet and the family including Sushmita, her daughter, and mother-in-law have to rely on neighbour's toilets.

The Pradhan of the GP, Jayanti Subba estimated around 70 houses were damaged due to this flood and around ten houses are totally ruined. According to her, the rise of plastic pollution in the hills may have contributed to the landslides as plastic does not melt naturally in the soil and prevents soil fixation. She mentioned the funds received by the panchayet is extremely insufficient to effectively maintain drainage work in the area.

Another member, Dipendra also pointed to climate change, pollution, and blocked drainage as the plausible reasons for this disaster. The villages are flooded due to such blockages. Village-level reports are prepared by non-government organisations, then it is sent to the block-level and subsequently to the district-level. Based on those reports' funds are allocated for specific needs, the regular fund of the Panchayet is insufficient to cover all arenas.



Interview with Jayanti Subba (Pradhan, PGSD II GP)



Interview with Jayanti Subba (Pradhan, PGSD II GP)



Affected locals congregated at the Community Centre.



Meeting with locals at Nandalal Gaon, PGSD II GP, Mirik Block.



With HSWS and local Panchayet members.



After landslide, Mirik.

Bamandanga

According to field reports, the entire village of Bamandanga Model Village and Tandu Tea Garden suffered severe damage due to the impact of flooding around 4:00 AM on October 5, 2025. Many residents saw their homes destroyed; numerous individuals who relied on livestock rearing lost their animals as they were swept away by the floodwaters, and tragically, a mother and her young child lost their lives in the disaster.

Bamandanga Tea Garden has been established for many years; the local residents earn their livelihood through daily wages, rearing livestock at home, or working as migrant laborers. A local female resident recounted that on the morning of the disaster – around 4:00 AM – she

observed water appearing to overflow from a temporary embankment situated along the riverbank; within moments, the entire village began to fill with water.

News of the impending danger spread through the village as best it could, prompting everyone to flee toward higher ground. There was only one vehicle available in the village, which transported as many people as possible to safety outside the village limits; however, many residents remained trapped in the floodwaters for hours – some on their rooftops – while others, like the narrator and her mother-in-law, clung to areca nut trees to stay afloat. A watchtower located near the embankment eventually collapsed, creating an opening through which the floodwaters gradually began to recede from the village.

Another woman noted that the flooding had inflicted massive damage upon the entire village; numerous animals perished, and the village became virtually uninhabitable due to the accumulation of various debris and filth. Nevertheless, significant assistance poured in from neighboring villages, ranging from aid in cleaning up the village to providing clothing, food, and drinking water.

Manoj, a local resident of the area, explained that the "Model Village" is a relocated settlement situated within the river's floodplain. He noted that the embankment constructed along the riverbank actually increases the village's susceptibility to flooding, while ongoing deforestation in the surrounding forest further weakens the riverbanks.



Water reached the ceiling during the flood.



Inhabitable houses demolished and filled with thick layer of mud.





Houses completely shattered after the flood.



Bamandanga



The embankment.



The embankment



Lots of houses got completely washed away. Many of those which remained are in ruins.



With Umul members and the residents of Tandu and Bamandanga village.

Analysis and Discussions

The field findings reveal that the severity of the disaster was not solely a product of extreme rainfall but the result of long-standing environmental and institutional failures.

Causes and impact

The rainfall in October 2025 was exceptional, with Darjeeling recording 261mm in 24 hours. However, the impact was amplified by factors that experts had previously warned about. The highway built overlooking proper water channelling measures contributed in the flooding. Smaller streams that once carried rainwater safely were merged together, shrinking natural water channels. When heavy rain fell and a canal burst nearby, the water had no controlled path and surged directly into inhabited areas. The use of bulldozers and vibratory tools further destabilised the terrain. Moreover, the pollution from the construction accelerates siltation in the streams and rivers.

These findings align with the observations of Professor Partha Pratim Biswas and other experts cited earlier. The blocking of natural drainage systems, construction in vulnerable zones, and failure to maintain River Regulated Zones all contributed to making communities more susceptible to flooding. Thus the family whose household was washed out represents a pattern instead of an isolated case.

Institutional gaps

The absence of panchayat presence for 23 years in the affected areas meant that families received no compensation or official aid. Even when given, compensation was limited to those whose land was directly acquired for highway construction. Families affected by the indirect consequences of that construction were left with no recourse.

Community coping mechanisms:

Amid the institutional gaps, the community is nonetheless resilient against the disaster according to their means. Neighbours were actively helping one another in rebuilding demolished houses, pooling whatever materials and labour they could spare. In some areas, residents were constructing protection walls around their homes using locally available materials, attempting to safeguard against future floods.

Local NGOs such as HSWS played a constructive role by distributing seeds to affected families. This intervention was particularly significant because it addressed not just immediate hunger but longer-term nutritional security. Families could now grow vegetables to meet their own dietary needs, reducing dependence on external food aid. However, as one resident noted, there was currently no market for selling vegetables, meaning the intervention was currently limited to subsistence rather than livelihood restoration. The further distribution of livestock may improve the situation.

The panchayat and local organisations were actively engaged in figuring out measures for mitigation. Discussions were underway about what steps could be taken to reduce future risks. However, a recurring constraint reported by local leaders was the lack of funds. Without adequate financial resources, even well-intentioned mitigation plans remained on paper.

Assessment of Relief Distribution

Relief was distributed in the following areas:

- Bamandanga Model Village and Tandu Tea Garden Villages
- Kaagey, Sangsey, Lolay villages in Kalimpong District
- PGSD II Gram Panchayat(Nandalal gaon, Char Number, 9th Mile, Jamansingh Gaon, Chandraman Gaon, Bahudur Gaon)

Kits Distributed

The following kits were distributed in the selected areas Kalimpong and Mirik Block in Darjeeling per family. According to the assessment by the local organisations different locations have received different relief kits based on need.

Kit- 1 (Ration)

- Rice 20kg

-Daal 2kg

-Sugar2kg

-Tea 500gm

-Solt 2kg

-Wheat 5kg

-Spices

-Oil 2 liters

Kit- 2

Livestock support 1

Kit- 3

Tarpaulin 1

Kit- 4

Seeds

Kit- 5

Health and Sanitation kits

Kalimpong Relief Distributed

Sangsay

Kit 1 (20 families)

Kit 2 (20 families)

Kit 3 (20 families) .

Kit 4 (30 families)

Kit 5 (20 women)

Kagey

Kit 1 (20 families)

Kit 2 (10 families)

Kit 4 (30 families)

Kit 5 (20 families)







Mirik Relief

Distributed

PGSD II Gram Panchayet (Nandalal Gaon, Char number, 9th mile, Jamansing Gaon, Chandraman Gaon and Bahudur Gaon)

Kit 1 (63 families)

Kit 5 (50 womens)





Kalimpong and Mirik has a total of 1033 beneficiaries.

Bamandanga Relief Distributed

Bamandanga faced another severe crises of drinking water as the tube wells in the household got choked with mud and most of them malfunctioned after the flood. Thus, handpumps were repaired in the Bamandanga Model Village as relief.

- Total 50 handpumps were repaired benefitting 314 families
- A combined livelihood community-based project of rebuilding a pond total 158 beneficiaries in Tandu village.
- A total of 900 beneficiaries.





Total 30 Livestock support kits were distributed for group livestock farming in Kalimpong district among 30 families benefitting 150 people.

Total 103 ration kits were distributed in Mirik, Kaagey and Samsey and benefitted 103 families, that is 380 beneficiaries.

Total health and sanitation kits were distributed to 50 women beneficiaries in Kalimpong and Mirik.

20 families received tarpaulin in Kalimpong district.

Seed kits were given to 60 families in Kaagey and Sangsey for farming.

In Bamandanga model village and Tandu tea gardens, since there was a flash flood, homes and drainage systems were badly affected. Therefore a total of 50 handpumps were repaired benefitting 314 families and almost 900 people.

A combined livelihood community based project of rebuilding a pond as a source of livelihood was constructed for 158 beneficiaries at Tandu tea garden.

A team of young people visited all the disaster locations and conducted a study of the causes behind the incidents of disaster. A community mapping workshop was also conducted in Bamandanga and Tandu tea gardens where communities themselves are authoring a report on their experiences during this disaster.

Recommendation