

Nepal Flood: Multi-Sectoral Impact

October 2024



The continuous heavy rainfall across multiple provinces of Nepal from September 27 to October 1, set new records in several regions and caused extensive damage. Despite Nepal contributing just 0.1% of global emissions, its extreme vulnerability to climate change is evident, as many people were affected due to the flooding. The situation underscores the country's ongoing struggle with climate change-related disasters and the lack of robust mitigation and recovery mechanisms ([The Kathmandu Post](#) 02-10-2024, [UN](#) 01-10-2024, [The Himalayan Times](#) 01-10-2024, [Kantipur](#) 28-09-2024, [Kantipur](#) 27-09-2024).

The recent disaster has inflicted severe economic damage in the country, revealing its vulnerability to climate-induced shocks. With over 17 billion rupees in estimated losses, the agricultural sector, the backbone of Nepal's economy has suffered the greatest impact, losing 6 billion rupees, threatening food security and rural livelihoods. Damage to infrastructure, including roads, water supply, energy, and irrigation systems, totaling billions more, will hinder economic recovery and strain public finances ([Annapurna Post](#) 02-10-2024, [Kantipur](#) 01-10-2024).

Many affected communities remain cut off from critical aid due to blocked roads and broken bridges. Rescue operations have been hindered by adverse weather and damaged infrastructure, limiting access to isolated areas. In Lalitpur, delayed rescues

due to unfavorable conditions resulted in losses ([Kantipur](#) 01-10-2024, [UN](#) 01-10-2024, [The Himalayan Times](#) 01-10-2024, [UNICEF](#) 01-10-2024, [OCHA](#) 01-10-2024).

Key Figures



([UN RCO](#), [NDRRMA](#), 03-10-2024)

According to weather reports, since September 26, the Kathmandu Valley has experienced its heaviest rainfall in nearly five and a half decades. As the government through the department started keeping records of rainfall since 1970, it was found that several regions set new rainfall records, highlighting the intensity of the weather conditions across the country.

Daman in Makwanpur received 410 mm, exceeding its previous maximum of 373.2 mm recorded on 20 July 1993. Kathmandu valley also faced high rainfall at multiple centers, with Khumaltar (381.2mm) and Godavari (366.6mm) on 26th September. Similarly, Kathmandu Airport (239.7 mm) and Panipokhari (206 mm) recorded amounts is close to their historical highs. Khopasi in Kavrepalanchwok followed with 331.6 mm, surpassing its previous record of 276.9 mm set on 3 September 2015. In Lalitpur, Chapagaun (323.5 mm), Godawari (311.6 mm) and Khokana (297.3 mm) witnessed heavy rainfall, breaking earlier records from 23 July 2002. Additionally, areas like Gobindabasti in Chitwan (264 mm) and Gajuri in Dhading (261.2 mm) also saw intense rain, surpassing recent records from 2024 and 2021, respectively. In just 3 hours on October 2, Tarhara in Morang, received 66.8 mm of rain, while Kerabari recorded 52.8 mm ([The Himalayan Times 01-10-2024](#), [Kantipur 29-09-2024](#), [Kantipur 02-10-2024](#)).

Senior Divisional Meteorologist at Nepal's Department of Hydrology and Meteorology, Shanti Kandel confirmed that severe flash floods and landslides in the Kathmandu Valley resulted from the heaviest rainfall in over 50 years, with data from September 29 showing the highest levels recorded in 54 years. Similarly, meteorologist Pratibha Manandhar explained that monsoon winds are still influencing weather patterns across Nepal, while a low-pressure system over Madhya Pradesh, India, is contributing to these conditions. Additionally, the statement from ICIMOD notes that the heavy rainfall occurred on already saturated soil, following over 25% above-normal monsoon rainfall in Kathmandu. Poor drainage, unplanned settlements, construction on floodplains, lack of water retention areas, and the narrowing of the Bagmati River have worsened the impact ([OCHA 01-10-2024](#), [The Himalayan Times 01-10-2024](#)).



Recent extreme weather events in Nepal have led to significant challenges in the health sector. A total of 62 health facilities have been affected, with 6 completely destroyed and 56 partially damaged. Out of these, 49 are operating with limited capacity, while only 9 are providing regular services. The flooding devastated the Bhaleshwar and Palanti settlements, forcing many victims to seek refuge in Panauti bazar, leaving locals traumatized as they recall the severity of the disaster. In light of these events, UNICEF’s I-Hear-U social listening platform analyzed over 20,000 online posts from September 27 to 29, revealing deep concerns among communities regarding the emotional and psychological toll of the

disasters. Additionally, there are worries about long-term impacts, prompting calls for improved disaster preparedness and infrastructure ([UN OCP 03-10-2024](#), [The Kathmandu Post 02-10-2024](#), [UNICEF 01-10-2024](#)).

Limited access to healthcare is increasing the risk of waterborne and vector-borne diseases like cholera and dengue fever. Water supply systems have been widely damaged, threatening children's health and nutrition. In Roshi key infrastructures have been damaged, including an under-construction 10-bed hospital ([UNICEF 01-10-2024](#), [The Kathmandu Post, 01-10-2024](#)).

Education

Approximately 190 schools have incurred damage, affecting approximately 23,000 children, while the overall damage and loss of educational resources remains unassessed. In Kathmandu, it was reported that hundreds of schools were damaged, prompting the government to close them until October 1st to complete cleanup efforts and give students time to recover.

The primary needs are debris removal, provision of educational kits, mental health



of children needs to be assessed, and schools’ damage and losses need to be looked into in detail ([UN RC Nepal 07/10/2024](#), [UN 01-10-2024](#), [AP 02-10-2024](#)).

According to initial assessments from various authorities, there is an urgent need to provide food assistance for displaced individuals. The risk of malnutrition among vulnerable children under five has increased due to the contamination of water sources and subsequent disease outbreaks. UNICEF is prioritizing their efforts towards ensuring the continuation of lifesaving nutrition services and appropriate feeding and care for affected children under five growing risks of malnutrition. In Balra Municipality-3, Sarlahi, the Musahar community, left homeless and with no food after the flood swept away their possessions,

has been relying on Chiura and noodles provided by the municipality but is still awaiting further food assistance ([OCHA 01-10-2024](#), [UNICEF 01-10-2024](#), [Annapurna Post 02-10-2024](#)).

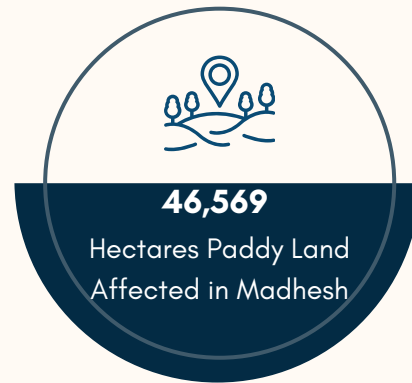
 **Livelihood**

Small and medium-sized business owners along rivers in the Kathmandu Valley have suffered major losses to their assets and property as a result of the recent floods, especially in informal settlements and impoverished areas. Such damage is expected to worsen their economic outlook in the future as most of these businesses are established in thin resource base zones. However, the extent of impact on livelihood and structure has not been assessed completely; the situation has been made worse due to poor risk assessment and disaster preparedness ([OCHA 01-10-2024](#), [Kantipur 29-09-2024](#)).

OCHA identified the restoration of small and medium enterprises along rivers in Kathmandu Valley as a key priority after the floods, as these businesses were heavily impacted. Additionally, the International Labor Organization ranks Nepal among 16 Asia-Pacific countries that are particularly vulnerable to climate change. Where it is essential to tackle immediate restoration requirements and ensure income security through a strong financial social security system to promote long-term resilience and facilitate economic recovery ([OCHA 01-10-2024](#), [Kantipur 01-10-2024](#)).

In the aftermath of the floods, Prime Minister KP Oli highlighted that the Agriculture and livestock sector experienced the most substantial damage, with losses amounting to 6 billion NPR. Fruits and vegetables farms were damaged over 4,765 hectares, while fish ponds, although only 458 hectares affected, recorded a staggering loss of financial worth of NPR 1.13 billion, highlighting the high economic value of fish farming. The livestock losses were also notable which affected 26,205 animals. Smaller sectors such as sugarcane and cardamom fields, though affecting 85 and 1,300 hectares respectively, faced losses of NPR 0.34 billion and NPR 0.7 billion, highlighting the economic significance of these crops. These figures reflect not only the extent of the damage but also the varying economic impacts across different agricultural sectors. The scale of the damage suggests significant challenges ahead for recovery and rebuilding within this key sector ([Annapurna Post](#) 02-10-2024, [NDRRMA](#) 03-10-2024).

As of October 4, over 46,569 hectares of land were reported to be affected in eight districts of Madhesh Province alone. In Sindhuli's Hariharpurgadhi rural municipality, floods had a disastrous impact on households, as they wiped out livestock. For instance, in Panauti, people suffered greatly not only with the loss of over 2,000 livestock and hundreds of crops to floods and landslides but also to the flooding of lands that grew vegetables.



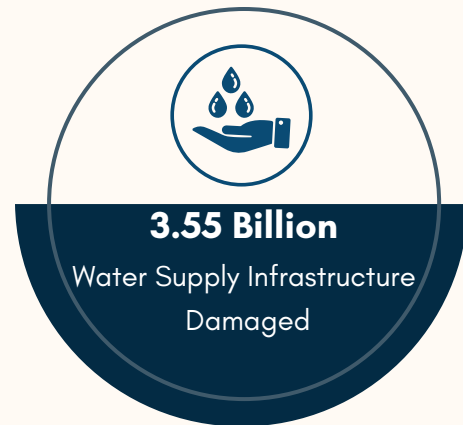
The negatives of these losses such as food and economic capacity management are more obvious in rural areas which are largely dependent on farming and livestock thereby casting the affected households in a weak situation with long-term economic effects ([UN RC Nepal](#) 07/10/2024, [Annapurna Post](#) 02-10-2024, [The Kathmandu Post](#) 02-10-2024).

In Sunsari it negatively affected agriculture with about 100 bighas of rice and vegetable farming getting destroyed. In terms of the country as a whole, more than 11 billion NPR was lost in damages to necessary infrastructure in 21 districts that also included irrigation systems and other facilities ([The Himalayan Times](#) 01-10-2024, [Kantipur](#) 02-10-2024).

Recent natural disasters have severely impacted the country's water supply systems, leading to significant financial losses in drinking water infrastructure. In a press conference, Prime Minister KP Sharma Oli stated that the losses to water supply infrastructure amount to 3.55 billion. A NDRRMA report showed that approximately 520+ federal water supply projects have been affected. As reported by UNICEF, floods and landslides have damaged water supply systems and sanitation facilities, disrupting access to safe water and sanitation in different areas. According to Jayaram KC, chairman of Ward 12 in Panauti municipality, drinking water services have been completely halted in the affected settlements ([Annapurna Post](#) 02-10-2024, [NDRRMA](#) 03-10-2024, [UNICEF](#) 01-10-2024, [The Kathmandu Post](#) 02-10-2024).

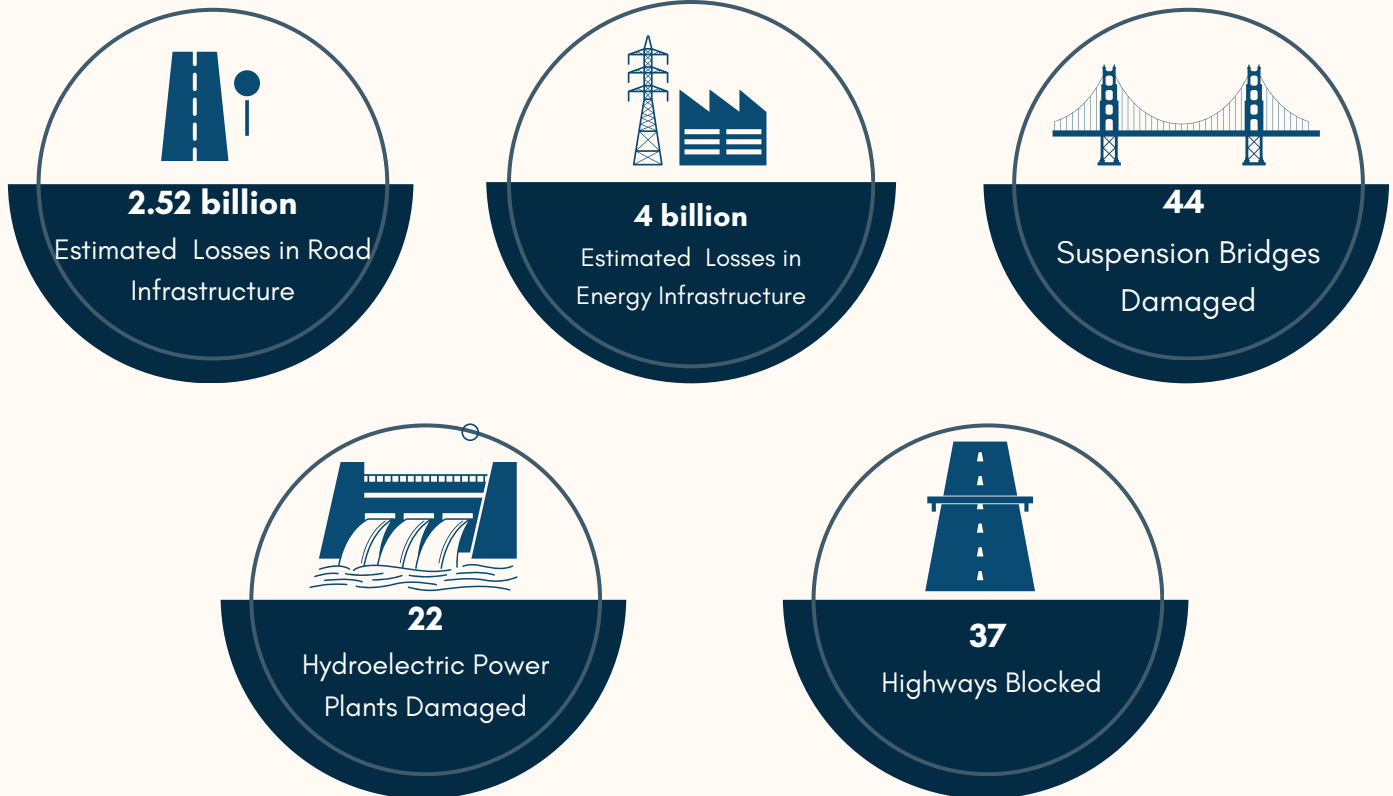
Agencies in Bagmati Province have requested mosquito nets for displaced individuals living in tarpaulin tents, but there are currently no nets in stock. The Ministry of Health and Population has stated that it is not responsible for distributing mosquito nets) and the Epidemiology and Disease Control Division has confirmed that it does not have any nets available for the displaced people in temporary shelters ([The Kathmandu Post](#) 02-10-2024).

Initial assessments from various authorities highlight that emergency Water, Sanitation, and Hygiene (WASH) facilities are an immediate need for displaced individuals.



According to OCHA, an estimated USD 2 million is required for the procurement and replenishment of lifesaving supplies, including hygiene kits, bed nets, water purification tablets, and buckets ([UNICEF](#) 01-10-2024, [OCHA](#) 01-10-2024).

As a recommendation, scientists have called on central governments and city planners to invest in both engineered and nature-based infrastructure. This includes creating underground stormwater and sewage systems, restoring wetlands, and using permeable pavements and rain gardens to improve water absorption in cities and help communities adapt. With over half of the urban population relying on alternative water sources, such as tankers or wells, community and household engagement is essential to prevent potential disease outbreaks. Therefore, environmental cleaning and disinfection of water supply and sanitation facilities must be a top priority ([The Himalayan Times](#) 01-10-2024, [UNICEF](#) 01-10-2024).



As of October 2, the recent floods and landslides have caused widespread devastation across Nepal. Major roads have been blocked, hampering critical search and rescue efforts. SP Gyanendra Prasad Phuyal reported that some roads have been repaired and are now operational, though initially only for one-way traffic. Additionally, five major transmission towers and 312 telecommunication sites have been damaged. 17 road sections remain blocked, with seven open for one-way traffic. The floods have also washed away one and a half dozen bridges, including concrete, Bailey, and suspension bridges, leading to the closure of main highways connecting Kathmandu. A total of 44 suspension bridges were damaged, resulting in losses amounting to NPR 1.04 billion. Among the total, 25 were fully damaged of estimated loss NPR 950 million and 19 were partially damaged of estimated loss NPR 92 million. Since the monsoon rains have lessened since Sunday,

September 29th, daily life and the tourism sector have seen some relief. Additionally, following an initiative by the Minister of Tourism, airlines have agreed to sell air tickets at reduced prices until the roads are fully operational. Previously, air service providers had agreed to offer tickets at minimum fares for three days. The Ministry of Home Affairs reported severe damage to physical structures and road networks, with 22 hydroelectric power plants and nine transmission lines disrupted, affecting 1,000 MW of power generation. Traffic was blocked at 42 locations on 14 highways ([The Kathmandu Post](#) 02-10-2024, [Annapurna Post](#) 02-10-2024, [Annapurna Post](#) 02-10-2024, [NDRR](#) 03-10-2024) [The Himalayan Times](#) 01-10-2024, [Kantipur](#) 01-10-2024, [OCHA](#) 01-10-2024, [UN](#) 01-10-2024 [AP](#) 02-10-2024, [Kantipur](#) 30-09-2024, [Kantipur](#) 30-09-2024) ([Annapurna Post](#) 01-10-2024).

The Roshi River floods have caused extensive damage to the BP Highway, particularly affecting the Khurkot-Nepalthok, Nepalthok-Bhakundebensi, and Bhakunde Besi-Dhulikhel sections, with approximately 2,500 meters of the road completely washed away. Efforts are underway to construct a temporary track by diverting the river to the east to restore some traffic flow. Several other sections of the highway have been damaged, including significant portions in the Nepalthok-Ampatar, Kaldhunga, Dalabensi, and Chiuriwas sections. The floods have also affected the Sindhuli-Dhulikhel section, causing traffic disruptions for five days. Hundreds of vehicles and thousands of passengers have been stranded, with rescue operations ongoing. The construction of permanent solutions, including concrete bridges, has been delayed, and there is no clear timeline for when the highway will be fully operational again. The situation remains critical, especially with major festivals approaching, and efforts are being made to restore at least temporary connectivity as soon as possible ([Annapurna Post](#) 02-10-2024, [The Kathmandu Post](#) 01-10-2024, [Kantipur](#) 30-09-2024).

The recent floods and landslides in the Roshi area have caused significant damage to infrastructure, including a motorable bridge in Ward 7, an industrial village in Ward 11, Over 1 km of road in the Nepalthok section of the BP Highway has been washed away, halting traffic. National authorities and Save the Children reported that four bridges have been damaged, and 23 highways have been impacted, with roads blocked at 33 locations

and one-way traffic operational at 414 locations across the country. This closure is particularly concerning as it affects over 10,000 vehicles that typically travel between Kathmandu and the eastern regions of Nepal, especially with major festivals like Dasain and Tihar approaching ([The Kathmandu Post](#) 01-10-2024, [Kantipur](#) 01-10-2024, [ECHO](#) 01-10-2024, [Annapurna Post](#) 02-10-2024).

One-lane traffic has resumed up to Bhakundebesi, but the 29-kilometer Chaukidanda-Nepalthok section remains blocked. The floods have caused extensive damage, exacerbated by the operations of crusher industries, which have released stones and mud onto the highway. The Bhakundebesi-Dhulikhel section has resumed one-way traffic after clearing blocked landslides. In the Khurkot-Nepalthok section, landslides have damaged areas in Sunkoshi Rural Municipality, including Kandhungri, Dumza, Kamerephant, and Tupidanda, with temporary operational arrangements made. Overall, 21 districts, including Kavrepalanchok, Lalitpur, Dhading, Kathmandu, Sindhupalchok, Sindhuli, and Makwanpur, have been severely affected, with 37 highways blocked and only 9 operational as stated by Chief Secretary Ek Narayan Aryal. Despite these challenges, the Nepalthok-Khurkot section on the Sindhuli side is now accessible in some rural municipalities ([The Kathmandu Post](#) 01-10-2024, [Annapurna Post](#) 02-10-2024, [Annapurna Post](#) 02-10-2024, [The Kathmandu Post](#) 01-10-2024).

Ward 12 of Panauti has been severely affected which has caused significant disruptions, with roads and access routes washed away. Additionally, essential services such as electricity and telephone connections have been disrupted ([The Kathmandu Post 02-10-2024](#), [The Kathmandu Post 02-10-2024](#)).

Floods and landslides have caused significant damage to the main road and concrete bridge in Ramechhap, especially affecting the Khurkot bridge on the highway from Ramechhap-Okhaldhunga to Kathmandu. This has prompted efforts to find alternative routes, as the road towards Sindhuli and the bridge at Khairenighat in Khandadevi Rural Municipality have also been blocked by the Tamakoshi River in Kirnetar. With the Khurkot bridge washed away and the road to Kathmandu via Nepalthok blocked, a temporary road towards Dolakha is being established ([Annapurna Post 02-10-2024](#)).

As of October 2, 16 hydropower projects producing 667 megawatts of electricity and 18 under-construction projects totaling 1,139 megawatts have been damaged, along with five major transmission towers. The Prithvi Highway has faced multiple closures due to landslides, including a two-hour closure on October 1 to clear debris at Jhyaple Khola in Dhading. Despite these challenges, over 1,700 vehicles managed to enter Kathmandu after the highway was partially cleared. The Nagdhunga-Muglin road section has also

been affected, with one-way traffic resuming after landslides. Across the country, two-way roads have been restored in 345 locations, while 408 locations remain open for one-way traffic. Landslides have also blocked roads in more than a dozen places in the central hills, including Sindhuli, Udaipur, Okhaldhunga, and Khotang ([Kantipur 02-10-2024](#), [The Himalayan Times 01-10-2024](#), [The Himalayan Times 01-10-2024](#), [Kantipur 30-09-2024](#), [Kantipur 30-09-2024](#), [Kantipur 30-09-2024](#), [Kantipur 30-09-2024](#)).

On October 1, one-way traffic was restored on the road section in Daunne, West Nawalparasi, after repairs were completed following the subsidence caused by heavy rains on September 27th and 28th. The East-West Highway in the Daunne jungle at Khursani Khola, Bardaghat Municipality-4, had caved in, leading to a full closure on the evening of September 30th. The collapse of a retaining wall and damage to a high-tension electricity tower further complicated the situation. Despite reopening for one-way traffic on October 1st, authorities decided to close the road completely overnight to clear debris and ensure full restoration of traffic flow. Additionally, roads in Daunne, Bandipur, Vyas Municipality, Panchkhal, Hanumangadhi Keraghari, Benighat, and Sunkoshi Kamedanda also reopened for one-way traffic. The road, which had been washed away on 30th September afternoon, was reopened in both directions through a diversion. Traffic was managed by creating

diversions throughout the night, and by the morning, vehicles stranded since the previous day were able to proceed. The district administration office issued a notification banning non-essential vehicles during this period, with Chief District Officer Skim Shrestha warning that the temporary diversion could be washed away if it rains. On October 2nd, it was reported that the disaster caused by incessant rains on 27th and 28th September night had resulted in significant damage to infrastructure causing material damage in 21 districts, with losses of 2.52 billion in road infrastructure, 4 billion in energy infrastructure ([The Himalayan Times 01-10-2024](#), [The Himalayan Times 01-10-2024](#), [The Himalayan Times 01-10-2024](#), [Kantipur 02-10-2024](#), [Kantipur 01-10-2024](#), [Kantipur 01-10-2024](#), [Kantipur 01-10-2024](#)).

On September 28, landslides occurred along the Basantpur road of Tansen Kailashnagar, blocking the Tansen-Ridy road with mud. It took nearly four hours to clear the debris and resume traffic. Meanwhile, the Bartung-Ramdi road section of Palpa on the Siddharth Highway remained blocked due to a landslide with large stones at Rambha Rural Municipality-3, Pipaldanda near Agahakhola. Despite efforts by the Road Division Palpa using two loaders, the road could not be restored until 28th September afternoon. The police indicated that the removal of the landslide would take additional time due to its size. This blockage affected passengers traveling from Syangja, Pokhara, Parbat, Gulmi, Arghakhanchi, Baglung, and Mustang,

who rely on the Siddharth Highway for transit ([Kantipur 28-09-2024](#), [Kantipur 28-09-2024](#)).

On September 30, road construction began in Tatopani, Sindhupalchok, to resume traffic after the Beli bridge was washed away by the Bhotekosi river. Kumar Shrestha, Chairman of Bhotekoshi Village-2, mentioned that the road division and two village excavators were working intensively, although the high river level was causing delays. The construction involves placing snow pipes and iron poles from the hydropower company to create an alternative route in Liping and Larcha. The situation has been tense as hundreds of containers carrying Dasain goods to Kathmandu have been stuck across Larcha. Additionally, 35 meters of the Tatopani-Hindi section of the Kodari highway, connecting Tatopani to China, was washed away, along with the internal road connecting old van parking to Bhotekosi 4 Golepa Pangsherpu village ([Kantipur 30-09-2024](#)).

As of September 30, the Bhainse section of the Hetauda-Bhainse-Palung-Nauvise-Kathmandu road has been operational in two-way mode. The Okharpauwa section of the Balaju-Trishuli road connecting Kathmandu and Nuwakot is operating in one direction only, as is the Mahadeotar section of Kanti Rajpath. Additionally, the Kodari and Daklang sections of Sindhupalchok under the Arani highway are also in one-way operation ([Kantipur 30-09-2024](#), [Kantipur 30-09-2024](#)).

On October 1, Nepal Police issued a notice stating that the Dakshinkali-Sisneri, Lele-Tikabhairab, and Bhedetar-Rake road sections are completely blocked. Various segments of the Kanti Highway, Kulekhani-Markhu, Bhimphedi-Kulekhani-Phakhel, and parts of the BP Highway also remain obstructed due to recent disasters. Additionally, the Bahrabise-Tatopani, Ramechhap-Sindhuli-Khurkot, and Saljhandi-Argkhanchi-Dhorpatan routes along the Kaligandaki corridor, as well as the Madhyabindu road section of the East-West Highway, are inaccessible. On September 30th, police reported that a vehicle involved in an accident was saved from major damage as it got stuck in a Mauva tree despite heavy traffic at the site. Additionally, around two kilometers of blacktopped roads have been compromised by the disaster ([The Himalayan Times 01-10-2024](#), [The Himalayan Times 01-10-2024](#), ([Kantipur 30-09-2024](#)).

Landslides in Dhading have disrupted mobility, leaving passengers stranded. Children face heightened risks of violence, abuse, and exploitation as a result of school closures and healthcare disruptions, with more than 10,000+ children deprived of safe learning spaces. Flooding in the Roshi Khola area has caused severe damage to key road sections, isolating communities and preventing movement. In Liping, continuous landslides have instilled fear among locals, severely restricting their movement and isolating the border region after a key bridge was washed away. Meanwhile, climate change impacts are compounding the challenge of social security in Nepal, with the ILO urging for stronger systems to address environmental risks ([UN](#) 01-10-2024, [The Himalayan Times](#) 01-10-2024, [Kantipur](#) 29-09-2024, [Kantipur](#) 01-10-2024, [Annapurna Post](#) 02-10-2024, [Kantipur](#) 30-09-2024).

The recent floods and landslides in Nepal have profoundly affected children and young people, who are now at an increased risk of violence, exploitation, and abuse, as highlighted by UNICEF's representative, Alice Akunga. She emphasized the urgent need for mental health support, noting that children have not only lost their homes but are also grappling with significant trauma, making them particularly vulnerable during this crisis. The psychological and emotional well-being of children has been severely impacted, with reports indicating heightened risks of gender-based violence, trafficking, and psychosocial distress due to the disruption of



normal family routines ([The Himalayan Times](#) 01-10-2024, [UNICEF](#) 01-10-2024).

The urgent priority needs for children and young people following the recent floods and landslides in Nepal are predominantly centered around mental health support and immediate humanitarian assistance. UNICEF representative Alice Akunga emphasized that children, who have experienced significant trauma and loss, require comprehensive support services to address their heightened vulnerability to violence, exploitation, and abuse ([The Himalayan Times](#), 01-10-2024).

Moreover, the International Labor Organization (ILO) has highlighted the need for Nepal to ensure universal social security to effectively respond to the challenges exacerbated by climate change. ILO Chief Numan Ozkan stressed the importance of renewing social dialogue between the government and citizens to achieve social justice and foster sustainable economic development. This indicates a pressing requirement for policy interventions that prioritize social security as a fundamental aspect of recovery efforts ([Kantipur](#), 01-10-2024).

Kathmandu experienced its heaviest rainfall in more than 50 years, causing significant damage to hundreds of houses and leaving the southern part of the city flooded. According to estimates from civil society, more than 7,600 families and 2,100 homes in informal settlements and low-income areas near rivers in Kathmandu and Lalitpur have been heavily impacted. NDRRMA report showed that, 4,667 private houses have been fully damaged and 5,310 have been partially damaged ([UN](#) 01-10-2024, [OCHA](#) 01-10-2024, [NDRRMA](#) 03-10-2024).

In Panauti municipality, over 500 houses were destroyed, and 713 were partially damaged near the Roshi River. The floods also affected about 300 houses in the Bhaleshwar and Palanti areas. Many victims have taken shelter in Panauti Bazaar, but the locals are still traumatized by this disaster. According to Kantipur, approximately 700 families from wards No. 1, 2, 4, 7, 8, 11, and 12 in the Panauti municipality have lost their homes. In Gurung village, nearly all the houses were submerged, and many are irreparably damaged, with some standing with only a single wall while others are close to collapsing. To cope with the situation, most of the homeless individuals in Panauti spent two nights in a school near the village. Similarly, some individuals in Harinagar Rural Municipality (Bhokraha Narsingh) looked for refuge in open areas, as several settlements remained flooded due to the Sunsari and Mariya rivers. Survivors from Wards 5 and 7 continued to find shelter in public spaces ([The Kathmandu Post](#) 02-10-2024, [Kantipur](#) 02-10-2024, [The Himalayan Times](#) 01-10-2024).



The Musahar community in Balra Municipality-3 of Sarlahi has been left stranded and homeless after the Bagmati River flooded their settlement. Similarly in Sindhuli, areas such as Bastipur, Kakare, Kurlephat, Chisapani Kudule Phat, Beltar, and Pahari Damar in Ward No. 1, as well as Bangaicha and Naya Basti in Ward No. 3, saw 50 houses submerged when the Bagmati River overflowed. Out of these, ten houses were completely washed away and destroyed ([Annapurna Post](#) 02-10-2024).

Hence, the initial assessments by various authorities indicate that one of the immediate necessities is temporary shelters, such as tents, for the displaced families ([OCHA](#) 01-10-2024).

The landslide has caused more damage in Roshi Bazar of Panauti Municipality due to the illegal quarrying and crusher industry around the Roshi River. The dumping of dust and soil from these operations has led to sediment buildup, reducing the river's capacity to handle heavy rainfall. As a result, increased water levels have caused flooding in local settlements, highlighting the urgent need for stricter environmental regulations to protect both the community and the ecosystem ([Kantipur](#) 02-10-2024).

According to the Ministry of Home Affairs, The recent floods in Bagmati Province have caused significant infrastructure damage across various wards, districts, and Municipalities. According to Dinesh Lama, chairman of Rural Municipality, Roshi Rural Municipality was hit particularly hard particularly in wards 1,2 and 9 have extensive destruction. Similarly, In Panauti Municipality, particularly in wards 1, 2, 4, 7, 8, 11, and 12, 20 critical infrastructure has been severely affected. The broader Kavrepalanchok district Lalitpur, Dhading, Kathmandu, Sindhupalchok, Sindhuli and Makwanpur has faced widespread flooding and landslides, impacting 21 districts ([Kantipur](#) 01-10-2024, [Annapurna Post](#) 01-10-2024, [The Kathmandu Post](#) 01-10-2024).

Nepal has experienced heavy and continuous rainfall since 27 September which caused significant damage to physical structures and infrastructure, particularly in Roshi Rural Municipality and Panauti Municipality. According to Rishi Ram Tiwari, spokesperson for the Ministry of Home Affairs, floods and

landslides have severely damaged physical structures across the 44 districts ([The Himalayan Times](#) 01-10-2024, [Kantipur](#) 29-09-2024, [OCHA](#) 01-10-2024).

Incessant rains in different parts of the country caused great human losses. According to the National Disaster Risk Reduction and Management Authority, 16,243 families were affected ([NDRRMA](#) 03-10-2024).

The recent flooding across Nepal underscores the urgent need for integrated, climate-responsive infrastructure and proactive risk management strategies. It highlights the growing importance of both engineered and nature-based solutions to enhance urban water absorption and community resilience. Furthermore, several scientists and publications have reported abnormal monsoon patterns in the context of climate change are essential for improving early warning systems and disaster preparedness. The government has not been able to implement a program to provide long-term relief to those affected by climate change. Immediate attention must be given to the needs and priorities of affected populations, ensuring that risk communication, community engagement, and public health interventions, such as preventing disease outbreaks, are effectively addressed in flood-prone regions like Madhesh ([Kantipur](#) 01-10-2024, [The Himalayan Times](#) 01-10-2024, [UNICEF](#) 01-10-2024).