

Short Note – 9 September 2014

# Nepal: Floods



<b>Need for international assistance</b>	Not required	Low	Moderate	Significant	Urgent
<b>Expected impact</b>	Insignificant	Minor	Moderate	Significant	Major

## Crisis Overview

The monsoon season had a normal start until early August, when heavy rains created massive landslides in Jure, Mankhaa village, Sindhupalchowk district, killing 134 people. Mid-August rains again caused massive flooding and several landslides in 21 districts, the majority of the in the mid-west. 225,000 people were affected, but as waters receded, the number decreased to 125,000 people (IFRC 08/09/2014). Of these, 26,000 continue to be displaced and 119 are still missing (OCHA 08/09/2014). Early September, a natural dam created by a previous landslide in the Sankosi River collapsed, sweeping away several bridges (International media 07/09/2014, local media 07/09/2014).

Affected groups	Government figures
Resident pop.	26,494,504
Affected	155,118
Killed	258
Injured	157
Missing	254
Displaced	11,179

## Key Findings

**Anticipated scope and scale** GDACS has estimated the current flood may have a medium humanitarian impact based on the magnitude and the affected population and their vulnerability (GDAC 08/09/2014).

**Priorities for humanitarian intervention**

- WASH and health, shelter, access.
- Worst affected districts are Sindhupalchok in South-central Nepal, and the Mid-Western districts of Surkhet, Bardiya, Dang, and Banke.

**Humanitarian constraints** Communication, logistics, damage to access infrastructure (roads and bridges).

## Crisis Impact

### Impact on Access of Affected Population to Essential Services

- **Food:** Floods have impacted the availability of food for at least 100,000 people (ADRA 09/09/2014).
- **WASH:** There is an absence of safe drinking water (NY Times 18/08/2014).
- **Health:** The Government of Nepal has reported 258 deaths and 157 injured, although the figures are expected to rise. The risk of waterborne and vector-borne diseases is high due to compromised water sources, and humanitarian actors on the ground fear a diarrhoea or malaria outbreak (ADRA 09/09/2014).
- **Shelter:** 8,000 homes have been destroyed and approximately 20,000 have been damaged (IFRC 08/09/2014). Some villagers have climbed trees or moved to high ground. In the worst-affected areas, people have been evacuated to school buildings and relief camps set up by the Government (The Guardian 18/08/2014).

### Impact on Critical Infrastructure

Bridges have been damaged or completely destroyed, and most roads to the west are completely submerged (The Guardian 18/08/2014).

Most health facilities in Bardiya and Banke have been destroyed (ADRA 09/09/2014).

### Humanitarian and Operational Constraints

Access has been hampered, with some humanitarian actors on the ground unable to reach affected communities (NY Times 18/08/2014).

### Proximity of Critical Infrastructure

A two kilometre dam created by August's landslides in Sindhupalchowk district, which blocked the Sunkhosi River, burst on 7 September, posing a grave threat to surrounding communities. The Nepal Army had been conducting controlled blasts to ease pressure on the dam. Some believe that these blasts, coupled with the onset of heavy rains, caused the burst. (Hindustan Times 08/09/2014).

## Key Characteristics of Host Population and Area

- **Demographic profile:** Population (2011 census): 26,494,504. Ethnic groups: Nepalese 58%; Bihari 18%; Tharu 4%; Tamang 4%; Newar 3%; Magar 2%; Abadhi 2%; other 12% (populstat). Rural population: 83% (2012) (UNFPA). Population below poverty line: 25.2% (2010) (WHO 2012). HDI (2014): 0.540 (145 out of 187) (Human Development 2014).
- **WASH:** Population with access to improved water: 88% (2012) (WHO 2012).
- **Lighting and cooking:** 62.8% of houses in Nepal have electricity. The majority use wood for cooking.
- **Health statistics:** People per physician: 13,777. Maternal mortality rate 190 per 100,000 (2012), Under 5 mortality rate: 42 per 1,000 live births (2012) (UNFPA). Leading diseases and illnesses include diarrhoea, gastrointestinal disorders, intestinal parasites, leprosy, and tuberculosis (Nepal Times 2011).
- **Nutrition:** Around 49.3% of children under five are chronically malnourished (FAO, 2010).
- **Literacy** rate average: 65.9% (populstat).
- **Weather:** Nepal has a typical monsoonal, two-season year. The dry season runs from October to May and the rainy (monsoon) season from June to September (Visit Nepal).
- **Location and Type of Housing/Infrastructure** In the valleys, burnt or sun-burnt brick walls are used, with thatch or brick roofing. In the Terai, houses are built with bricks or mud. Higher in the mountains, stones are the primary materials used. Poorer populations use bamboo-reinforced mud walls (UN Habitat Nepal). The western area is mainly farmland, and the poorer communities live in mud and straw huts, which wash away easily (The Guardian 18/08/2014).

## Response Capacity

### Local and National Response Capacity

The Government of Nepal is leading the response, including the distribution of food, non-food items, shelter, and medicines (OCHA 08/09/2014). The Nepal Red Cross Society immediately distributed preparedness stocks and NFI, and has mobilised volunteers, staff, several National Disaster Response Teams (NDRT), District Disaster Response Teams (DDRT), and Community Action for Disaster Response in Emergency (CADRE) (IFRC 08/09/2014). The Nepal Red Cross Society issued an Emergency Appeal (\$ 2.6million) but has not yet attracted significant funding (IFRC 08/09/2014). The National Emergency Operation Center is providing information and coordination activities.

### International Response Capacity

ECHO is providing \$320,000 to fund emergency relief efforts (ECHO 03/09/2014).

## Information Gaps and Needs

There is little to no information on the status of the affected population, including their health and most pressing needs.

## Lessons Learned

Nepal regularly experiences localised flooding during monsoon season, yet this is the worst flooding in Nepal since the Koshi River floods in 2008, which affected 2.3 million people (IFRC 08/09/2014). In 2013, 6,000 people were killed by floods and landslides in Uttarakhand during the monsoon season (The Guardian 18/08/2014). Past floods in Nepal and South East Asia have taught responders:

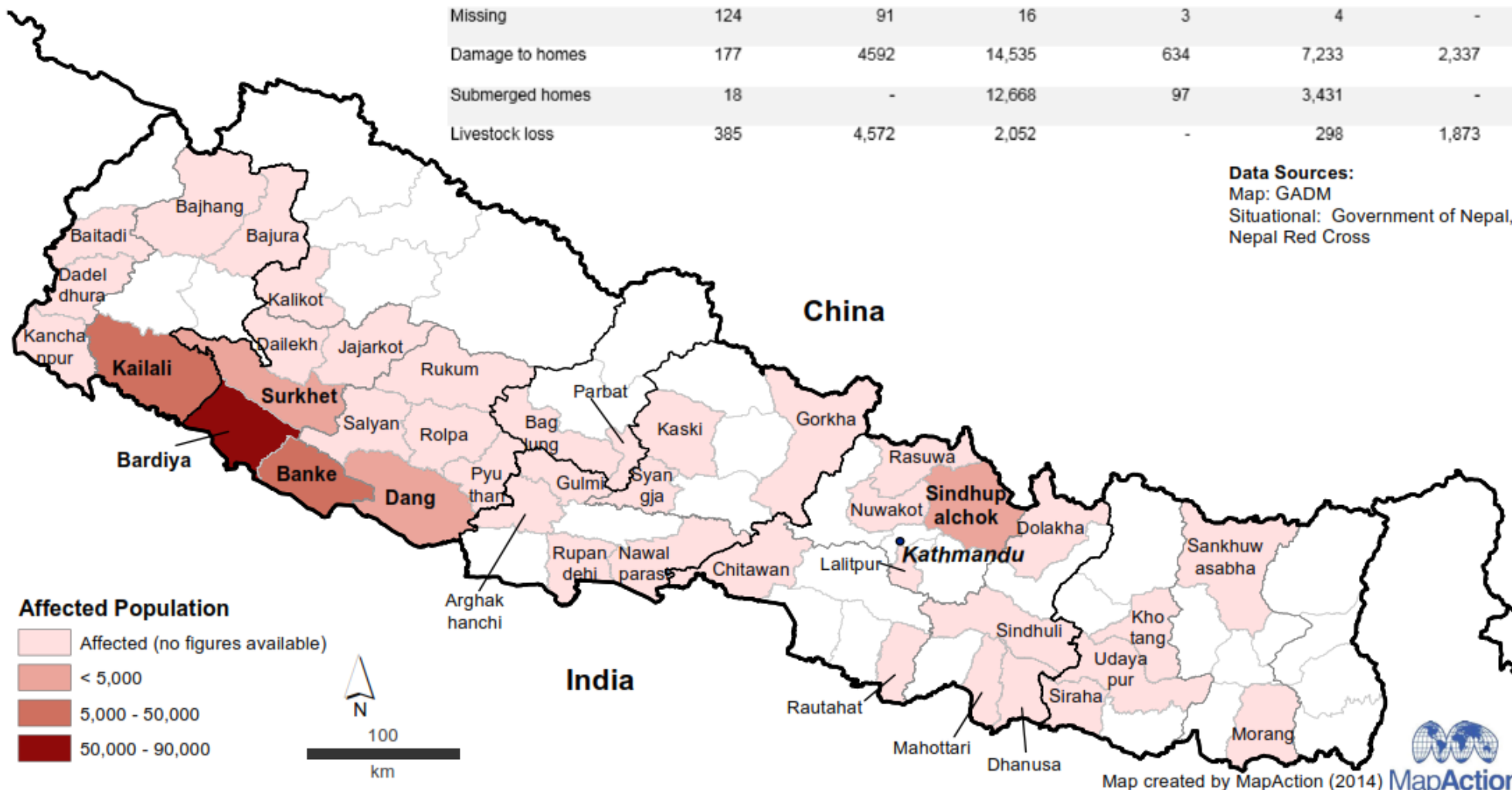
- Flood risk management, readiness for response, and community preparedness is only effective when carried out in an integrated manner.
- Resilience to natural disasters includes a home safe from flooding, the knowledge and skills to prepare for and cope with disasters, and the financial security to recover and rebuild in the aftermath of a shock.
- Flood control measures and policies should be directed to the mitigation of flood damage rather than flood prevention.
- Resources should be allocated to help people adopt a lifestyle that conforms to their natural environment. Solutions such as changing housing structures and crop patterns can help reduce flood damage.
- Good governance, appropriate environmental laws, acts, and ordinances will be necessary to achieve sustainable economic development and to reduce any environmental degradation.
- Implementation of an improved real-time flood and drought control warning system can reduce the damage caused by floods. Improved forecasting and early warning system and preparedness measures have helped to reduce the number of lives lost and impact on livelihoods by flood.


Sources: (WFP 19/20/2014, JNA ACAPS 04/2014)

## Nepal Floods: Affected districts and population as of 3 September

Key indicators	<u>Sindhupalchok</u>	<u>Surkhet</u>	<u>Bardiya</u>	<u>Dang</u>	<u>Banke</u>	<u>Kailali</u>
Total population	287,798	350,804	426,576	548,141	491,313	775,709
Population density	110/km <sup>2</sup>	140/km <sup>2</sup>	210/km <sup>2</sup>	190/km <sup>2</sup>	210/km <sup>2</sup>	240/km <sup>2</sup>
Affected population	1,297	4,572	80,860	3,387	41,045	19,703
Dead	50	34	31	14	15	7
Injured	52	23	2	2	2	8
Missing	124	91	16	3	4	-
Damage to homes	177	4592	14,535	634	7,233	2,337
Submerged homes	18	-	12,668	97	3,431	-
Livestock loss	385	4,572	2,052	-	298	1,873

**Data Sources:**  
 Map: GADM  
 Situational: Government of Nepal, Nepal Red Cross



Map created by MapAction (2014)  MapAction