### **Dolakha Valley Assessment, Nepal**

### **Dolakha District, June 2015**

#### SITUATION OVERVIEW

REACH An initiative of IMPACT Initiatives ACTED and UNIOSAT

### INTRODUCTION

Dolakha District was severely affected by the two major earthquakes that struck Nepal on 25 April and 12 May 2015. Comprising remote and hard-to-reach valleys, this District was one of the 14 heavily affected districts, defined as Priority Districts by the Nepali government.

To ensure full coverage of the prioritized areas, and because some areas were inaccessible by 4x4 vehicles due to the severe topographical terrain, REACH conducted assessments by helicopter in remote and hard-to-reach valleys.

The Situation Overview outlines the humanitarian needs among the residents living in hard-to-reach areas of the specific District of Dolakha, situated northeast of Kathmandu.

It covers communities located in four Village Development Committees (VDCs): two in Tama Koshi Valley (Khopaghagu and Bigu) and two in Rolwaling Valley (Laduk (Singati Bajar) and Gaurisankar). It displays, when available, key

information collected with regards to population & livelihoods, damage to housing; displacement; emergency shelter; WASH; damage to services and key infrastructure; and reported needs.

The present assessment complements a larger and statistically representative inter-agency shelter and settlements vulnerability assessment at the household-level, conducted in partnership with the Shelter Cluster.

#### SUMMARY OF KEY FINDINGS

The earthquakes and tremors caused large scale destruction, landslides and avalanches, resulting in heavy damage or the complete destruction of the majority of shelters, key structures and services.

In all VDCs surveyed, households were not displaced any significant distance from their home. Despite this, a significant percentage of households did nonetheless move from their pre-crisis location: 100%, except for Laduk, which reported an estimated displacement rate between 75-99%. Assistance in some form or another was reportedly

received by most communities and was mainly related to emergency support. While shelter, food and transportation feature as the top priority needs, access constraints remain key elements to consider in order to effectively plan and provide support.



Map 1: Location map of Dolakha District and the assessed valleys



#### **METHODOLOGY**

Together with Rasuwa, Gorkha and Sindhupalchock, Dolakha was one of the priority districts assessed including remote and hard-to-reach valleys.

On the 2<sup>nd</sup> of June 2015, REACH teams conducted an assessment in the District's valleys, which consisted of a community discussion questionnaire and participatory mapping activity. Due to the danger presented by landslides and broken bridges, teams were dropped by helicopter at mid- and end-line points in each valley to conduct key informant interviews and participatory mapping exercises. Additional interviews were subsequently held by phone to contextualize information gathered on-site.

Key informants were selected based on their area of knowledge, with preference given to those that had recently returned from affected areas in the assessed valleys. All data collected was transcribed on paper forms, and subsequently digitized and stored. After each round of key informant interviews, debriefing sessions were held with the enumerators to review the reported findings and incorporate their observations.

# POPULATION & LIVELIHOODS

Key informant interviews provided some information with regards to pre-crisis population and livelihood activities in the four VDCs surveyed.

At the time of the assessment, Khopaghagu VDC had a reported population of 2,560 people, living in 670 households. In terms of livelihoods, community members engaged primarily in subsistence gardening, farming, masonry and livestock keeping.

Similar pre-crisis livelihoods were also reported in Bigu VDC which has a reported population of 2,885 people living across 670 households. Although Bigu VDC comprises of 34 villages, at the time of the assessment, reliable information was only available for the villages of Rakham, Masin, Nangara, Sangwa, and Dadagar.

At the time of the assessment, Laduk VDC had a reported population of 3,500 people, living in 1,058 households. In terms of livelihood, community members reported activities similar to that of Khopaghagu and Bigu VDCs. Additionally, private businesses and remittances were reported as additional sources of income. Of those keeping livestock, more than 75% of animals were reported to have died or been lost due to the earthquakes.

Gaurisankar VDC had a slightly smaller reported population of 685 people, living in 150 households. Households reported a higher dependency ratio than those in other VDCs, with 7% of households having one or more disabled members and 3% caring for separated, unaccompanied or orphaned children. As for their pre-crisis livelihood, community members reportedly engaged in subsistence gardening, masonry, tourism businesses and livestock keeping. Remittances were reported as an additional source of income. Of those keeping livestock, approximately 1 to 25% of animals were reported to have died or been lost due to the earthquakes.

### DAMAGE TO HOUSING

For the four VDCs surveyed, prior to the earthquakes, houses were primarily constructed of:

- mud-bonded brick or stone with tile or slate roofing (Khopaghagu and Bigu VDCs), or corrugated galvanised iron (CGI) roofing (Laduk VDC);
- mud-bonded brick, stone or wood plank with slate or CGI roofing (Gaurisankar VDC);
- reinforced cement concrete (RCC) framing (Laduk VDC).

In Khopaghagu VDC, it was reported that 25% of houses were damaged during the first earthquake, while the remaining were damaged during the second earthquake. The highest percentage of damage



to houses was reported from Laduk VDC (90%), followed by Gaurisankar (75%) and Bigu (50%).

In all four cases, low quality materials, poor building design and poor construction practices were among the top three reasons given as main causes of housing damage.



Picture 1: Collapsed house in Simagaun Village (Gaurisankar VDC).

### **DISPLACEMENT**

In the four VDCs surveyed, most households were not displaced any significant distance from their home.

Although people have remained relatively close to their homes, 100% of the households in Khopaghagu, Bigu and Gaurisankar VDCs, as well as more than 75% of the households in Laduk VDC were reportedly displaced from their pre-crisis locations.

At the time of the assessment, community members were mostly residing in temporary shelters on open ground (80% and 73% in Khopaghagu and Bigu VDCs respectively), in evacuation centres (40% in Laduk VDC), or with family and friends in the same or different community (70% in Gaurisankar VDC).

At the time of data collection, in each of the four cases, all displaced households reportedly intended to stay in their current shelter for at least the next 30 days.

#### **EMERGENCY SHELTER**

Since the earthquakes, communities have received emergency shelter assistance in different forms, primarily tarpaulins, sleeping mats, blankets, plastic sheeting, and some cash. In Laduk VDC, the community also received kitchen items and tents to set up community health posts and other community facilities.

Across all four VDCs it was reported that debris could be used to rebuild. While most of the VDCs reportedly needed only light equipment and/or labour assistance for debris removal, in Laduk VDC it was reported that both heavy and light equipment along with labour assistance were needed for debris removal.

Temporary shelters in Khopaghagu VDC were primarily wood plank or bamboo-walled structures, with tarpaulin or wood plank roof coverings. In Bigu VDC, they primarily had tarpaulin or wood plank walls and, in some cases, no walls. Roof coverings consisted of tile/slate. Shelters in Laduk VDC were primarily tarpaulin, CGI or bamboo-walled structures with tarpaulin or CGI roof coverings. The community reported needing better wall materials, CGI and cash for the construction of temporary shelters. In Gaurisankar VDC they were primarily tarpaulin or bamboo-walled structures with tarpaulin, bamboo or plastic sheeting roof coverings.

All assessed communities reported the need for better roofing and/or wall materials for the construction of temporary shelters. Additionally, while Khopaghagu VDC reported the need for support in the form of labour assistance, Bigu VDC reported the need for tools. Both Laduk and Gaurisankar VDCs reported the need for support in the form of CGI and cash.

At the time of data collection, none of the households in the assessed VDCs had started to rebuild and none of the households in Khopaghagu and Bigu VDCs had received any information related to safer construction techniques. On the other hand, only some households in Laduk (less than 25%) and Gaurisankar VDCs reported to have received this information, through radio or word-of-mouth.

All households in the Khopaghagu and Gaurisankar VDCs and most households in Bigu VDC reported feeling unprotected against current weather conditions. All households in all three VDCs responded that they did not feel protected against the upcoming monsoon and winter seasons.

In Laduk VDC on the other hand, less than 25% of households reported feeling unprotected against current weather conditions; while less than 50% reportedly feel unprotected against the upcoming monsoon and winter seasons.

#### WASH

Prior to the earthquakes, the primary source of water for Khopaghagu, Bigu and Laduk VDCs was a local spring while in Gaurisankar VDC it was reportedly tap/piped water. The earthquakes had different impacts on these across each VDC.

In Khopaghagu VDC, the source was not affected and the community still had access to water. However, 95% of households which had flush septic toilet facilities prior to the earthquake reported them to be destroyed.

In Bigu VDC, although the source had not been affected, the quantity was reported to have decreased. At the time of assessment, no household had access to toilet facilities.

On the other hand, in both Laduk and Gaurisankar

VDCs, more than 75% of the drinking water sources had been damaged by the earthquakes, and at the time of assessment, the community was accessing water only from the river or streams.

In both these VDCs, households with toilet facilities prior to the earthquakes had ordinary drop toilets. In Laduk VDC, all of these were reportedly destroyed, leaving all households without access to toilet facilities. In Gaurisankar VDC, 25-50% of these were destroyed, leaving most households without access to toilet facilities.

## DAMAGE TO SERVICES & KEY INFRASTRUCTURE

#### **ELECTRICITY**

Prior to the earthquakes, an estimated 75-100% of households in Khopaghagu, Bigu and Laduk VDCs had micro-hydroelectricity. The same proportion of households in Gaurisankar VDC had electricity from either an isolated micro-hydroelectric power grid or a main electricity grid.

At the time of the assessment, 100% of households in Khopaghagu, Bigu and Laduk VDCs were found to be without electricity. In Gaurisankar VDC, more than 75% were with-out electricity at the time of data collection.

#### **KEY INFRASTRUCTURE**

In Khopaghagu VDC, all public service facilities have reportedly been destroyed, including schools, medical centres, and municipal service centres.

Schools and municipal service facilities were reported to have been destroyed in Bigu VDC, while medical services were said to be available at a health centre in Ward 6.

In Laduk VDC, public services including medical centres and municipal service centres remained accessible; however, it was reported that schools were not physically accessible.

Finally, while schools were destroyed in Gaurisankar VDC, the medical centre reportedly remained accessible.



Picture 2: School destroyed in Simagaun Village (Gaurisankar VDC).



#### REPORTED NEEDS

Communities were also asked about their priority needs and their preferred modality of receiving assistance.

In Khopaghagu and Bigu VDCs, the top three reported priority needs were shelter, transportation and food. Additionally, in Khopaghagu VDC, cash, CGI sheeting and training on safer construction techniques were reported as the reconstruction resources needed of which none are currently available in the community. Sleeping items, building tools and kitchen sets were reported as top NFI needs. Assistance can reportedly be received via pick-ups and porters.

Likewise in Bigu VDC, cash, fixings and nails, and chainsaws and accessories were reported as the reconstruction resources needed of which none are currently available in the community. Sleeping items, clothing and kitchen sets were reported as top NFI needs. Assistance can reportedly be received via pick-ups and porters. Accessibility per village is unknown, but it was reported that assistance delivery is possible by pick-ups.

The top three reported priority needs in Laduk VDC were shelter, drinking water and education. Earth removal equipment and training on safer construction techniques were reported as the

reconstruction resources needed, of which none were available in the community at the time of data collection. CGI, sleeping mats and blankets and kitchen sets were reported as top NFI needs. Assistance could reportedly be received via pickups.

Finally, in Gaurisankar VDC, the top three reported priority needs were shelter, roads, employment/jobs and hygiene items. Training on safer construction techniques was reported as the reconstruction resource needed of which none is currently available in the community.

Cash, CGI sheeting and timber for framing were reported as top NFI needs. Assistance could reportedly only be received via helicopter drops.

### **ACCESS CONSTRAINTS**

# IN THE UPPER PART OF THE VALLEY TOWARD NAGAUN

At the time of assessment, access was blocked by a landslide on the trail. While it was possible to pass this area, it was not possible to carry supplies overland.

# IN THE LOWER PART VALLEY TO SIMIGAUN VILLAGE

Before the earthquakes, goods could reportedly be received by a road from Singati Bazar. The goods used to be received in Chhetchhet and brought by porters on the upper side of the valley.

Since the earthquakes, key informants reported that the road has been blocked by a series of landslides and rockfall, a few kilometers after Singati Bazar, preventing communities from receiving goods. As a result of this, it was reported that villages have been organizing the delivery of food by helicopter.

# PRIORITY INTERVENTIONS

The high level of damage recorded suggests that any form of overland assistance is impossible, meaning that helicopter support would be the only possible modality for provision of support for community recovery, until footpaths are repaired or rebuilt.

The restoration of the road from Singati Bazar to Lamabagar would allow delivery of supplies to villages living along the valley.



Picture 3: Rockfall blocking access to the road to Lamabagar.

However, this will reportedly require heavy equipment (such as explosives and bulldozers), because of the numerous landslides blocking the road. Additionally, it is expected that the monsoon will complicate the restoration of access; therefore, this will probably not be undertaken until after the rains



Picture 4: Landslide below Rikku Village.

The restoration of the trail in the upper sides of the Dolakha valley could be completed with manual labour, and was already, at the time of assessment, being organized by the association of mountain guides (in particular the removal of debris from popular tourist trekking routes).

#### **About RFACH Initiative**

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