Bangladesh
Landslide

Disaster Summary Sheet – 5 June 2018

Landslides are caused by a combination of natural factors (heavy rainfall, cyclones, flooding), and man-made factors. In Bangladesh, landslides are mostly triggered by heavy rainfall, usually during June. However, the underlying causes of landslide include deforestation, hill cutting, and unregulated development work. Moreover, poverty and landlessness force poor people to live in risky hill-slopes (Natl Plan 2010-2015). All of these factors not only cause landslides but also contribute to the exacerbation of their impact.

Landslides are a regular geologic hazard in southeastern Bangladesh, notably in Chittagong Division (Bandarban, Chittagong, Cox's Bazar, Khagrachhari, and Rangamati Districts), the part of the country with the highest average slope gradients (see figure 1).

Rapid urbanization has driven hill-cutting activities, deforestation, and construction in Chittagong Division, leading to an increasing number and impact of landslides. Particularly, the influx of Rohingya taking refuge within camps in Cox's Bazar is contributing to deforestation and hill-cutting at an alarming rate. Though, Cox's Bazar previously had relatively low impact of landslides, the risk is becoming increasingly higher since 2010.

Rainfall patterns in Bangladesh have also changed in recent years, with short periods of intense rainfall becoming common. These are more likely to induce landslides on unstable slopes, such as those in Chittagong (Landslide Forum 2008).

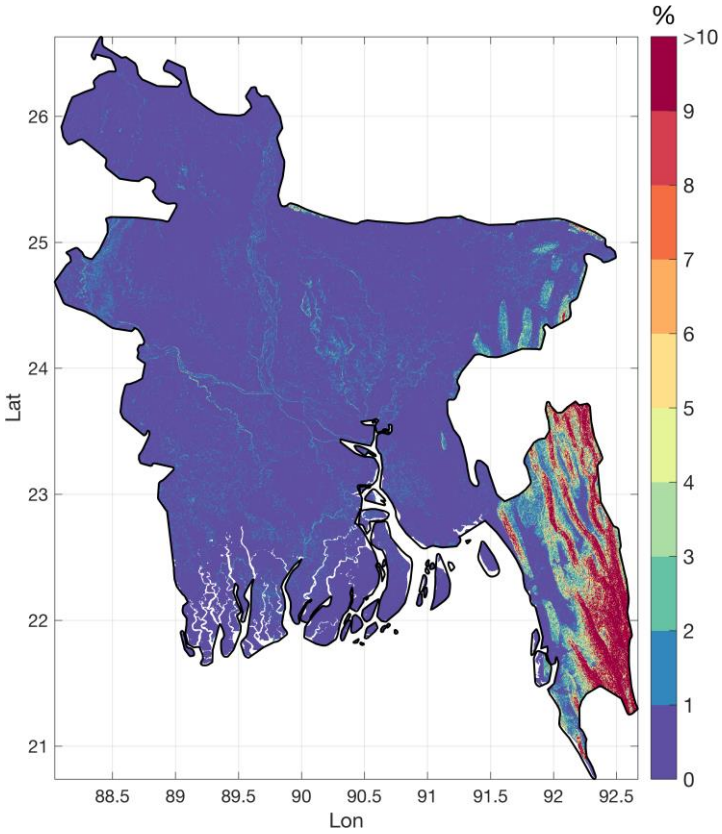

Figure 1: Topographical map of Bangladesh, demonstrating slope
Source: CYMMIT (2018)

Humanitarian and Operational constraints

In addition to their immediate impact, landslides often hinder access to people affected by other humanitarian crises. Communities living in mountainous terrain such as in Khagrachhari, Rangamati and Bandarban, where landslides are common and road or river transport options are limited, are particularly at risk of being cut off by landslides.

There are bureaucratic challenges, as there is hesitation from the government regarding direct cash transfer in the CHT area, due to political (terrorist) concerns. Additionally, there may be security concerns for foreign. As a result, it may be difficult to obtain permissions to work in the CHT.

Anticipated impact

Compared to other major disasters such as flooding and cyclones, the area affected by landslides is usually contained. However, there has been an escalation in the number of landslides in recent years. These events occur in concentrated areas of Bangladesh most significantly, Chittagong Division, and the long-term negative impacts often build up. As populations increase without adequate mitigation work in place, the economic and societal losses due to landslides is likely to continue to rise.

South-eastern Districts of Chittagong, particularly in the hilly areas of Bandarban and Rangamati, where proper infrastructure is already lacking, are the areas most likely to continue to be affected by landslides. Increasing human activities in the mountain areas can add to the existing vulnerability of communities further.

Significant risk of landslides in the rapidly growing urban centers of Chittagong, Cox's Bazar, as well as Teknaf Upazila within Cox's Bazar, require increased attention because of the potential scale of damage that can occur when disasters affect urban areas.

Shelter and NFIs: Property loss is one of the main impacts of landslides. Housing made from mud (kutcha) are specifically vulnerable to collapsing, as a result of heavy rains, and are most impacted by landslides. Other vulnerable shelters are lightweight structures with wooden frames, particularly older structures where the wood has depreciated and the walls have weakened, along with houses made of reinforced or poorly constructed concrete block (UNDP 2007).

In Cox's Bazar District, specifically Teknaf Upazila, heavy rain and landslides threaten makeshift shelters, made of bamboo and plastic, where Rohingya families are living. Most of the new sites have been built on and around the hillsides of a former wildlife reserve, which are prone to landslides. An estimated 24,000 Rohingya are at critical risk due to severe instability of the land on which their shelters have been constructed (UNHCR 04/05/2018).

District	Type of Structure (%) (Census 2011)			
	Pucka	Semi-pucka	Kutcha	Jhupri
Bandarban	5.69	6.86	83.69	3.76
Chittagong	19.50	16.04	57.65	6.51
Cox's Bazar	9.35	14.72	62.14	13.79
Khagrachhari	3.72	10.75	82.32	3.21
Rangamati	4.46	7.60	83.34	4.59

Health: Landslides cause casualties, as people buried in the landslide and rubble face suffocation. Other causes of mortality are blunt trauma, abdominal trauma, and fractures in the spine or pelvis (Kennedy et al. 2015). The most common injuries for survivors are lacerations and contusions, concussions and fractures.

When girls and women are displaced, as well as cut off from the health infrastructure, the potential for reproductive health emergencies leading to morbidity and mortality is high; maternal and newborn mortality are likely. Menstrual hygiene of adolescent girls is a big problem after such a crisis, but usually is overlooked in response efforts.

WASH: People displaced by landslides may lack of safe drinking water, and damage to sanitary systems. Landslides can disrupt waste management systems and pollute water supplies, in turn increasing the risk of water-borne disease. This was seen in the Karnaphuli Estuary in Bangladesh after a landslide in May 2007 (Kennedy et al. 2015). After the landslide, the rise of waste levels in already polluted waters resulted in an increase in bacterial growth, including a large increase in faecal coliforms (Kennedy et al. 2015). Water supply in the hilly areas of the Chittagong Hill Tracts is already problematic; landslides further compound this.

People who are displaced from their homes, as a result of landslides, take shelter in areas or buildings without adequate WASH facilities. The risk of disease, such as a cholera, is aggravated in densely populated areas where there have been damages to the WASH infrastructure (WASH Cluster Technical Working Group 01/10/2017).

Food security: Food security is impacted at the household and community levels. Food stocks may be damaged or lost, or cooking facilities may become unavailable. Agricultural land may be lost in the landslide, particularly in communities reliant on terrace farming.

If there is a disruption the in food supply to the communities affected, markets could face an increase of prices of essential commodities.

Nutrition: There may not be a direct impact on nutrition, but landslides can generate situations that enhance vulnerability and can result in an increase in malnutrition. Damage to food stocks of the affected families, non-availability of cooking facilities and fuel, together with likely increased exposure to communicable diseases like diarrhoea and compromised health services might have impact on the nutrition situation in the longer term.

Livelihood: The CHT districts consist mainly of a mix of different farming and production systems. Jhum and plough cultivation co-exist with fruit growing and horticulture. Due to landslides, areas of crops and homesteads, vegetable and fruit gardens are often

inundated resulting in economic loss and uncertainty in the livelihood of the affected families and communities (NAWG 2017). The impact of landslides on livestock is also often significant.

Protection: Damage to power sources and loss of electricity raise protection issues, particularly for women and children who risk bring exploited in poorly lit areas. In 2017, there was an estimated 818 cases of rape in Bangladesh, an additional 565 cases were of children (ASKBD 24/04/2018). It is likely that many other rape, and or sexual harassment cases, have gone unreported, as victims of sexual abuse are often stigmatized and isolated in conservative environments. Heightened risk of harassment and sexual assault in temporary shelters lacking adequate privacy and security, particularly for young women and children. Children are vulnerable to exploitation, abuse and violation as they are taking shelter with strangers, or found separated or unaccompanied. Women and girls often avoid using latrines, as they do not feel safe using non-gender specific facilities. As a result, they often resort to open defecation near their shelters, or control their food and water intake in order to avoid having to use unsegregated WASH facilities. This raises further health concerns. Loss of personal goods and effects that preserve personal dignity, like clothing garments and hygiene items, also limit mobility for women and girls.

Education: There is no specific information in the literature reviewed regarding the impact of landslides on schools beyond:

- Physical impediment to access
- Loss of damage to learning materials. Unlike in other types of flooding where there are warnings it is not possible for learning materials and classroom assets to be removed prior to a flashflood.
- Damage to school structures.

Market Access

Poor infrastructure in CHT districts limits access to employment, income and markets. The number of growth centres is remarkably low in the food insecure districts (Bandarban and Rangamati). Unavailability of market/growth centers obstruct access to sellers, affecting their income and livelihood. It is difficult for farmers to market their products as they mostly carry their goods over long distances. The cost of transport is thus very high and often higher than sales proceeds. Financial loss is suffered as an outcome of product loss due to lack of suitable transportation and storage facilities (FAO, 2014). Poor transportation networks is also causing unstable food supply. Due to the frequency of natural disasters, and general climatic conditions, rice harvest and yields constantly fluctuate. Cost of some goods can increase, due to the failure of the supply chain, if landslides affect logistics.

Impact on critical infrastructure

Critical infrastructure, such as school and health clinics, may be situated in high-risk locations and will continue to be at high risk of landslides unless mitigation work is undertaken.

Vulnerable groups affected

People with disabilities and older people find leaving their shelters challenging, even if they receive early warning for landslides. Similarly, difficult terrain acts as a barrier to accessing aid post-disaster.

Approximately 42.5% of married women in Chittagong Division are estimated to experience physical violence and 23.7% are estimated to experience sexual violence during their lifetime (BBS, Violence Against Women Survey, 2015). Pre-existing patterns of discrimination compounded by lack of household decision-making power, land rights, and access to education render indigenous women and girls in the CHT region doubly vulnerable to gender-based violence as a result of a landslide (Kapaeeng Foundation, Human Rights Report, 2012).

Most affected areas are part of the Chittagong Hill Tracts (CHT); the CHT regions is home to 11 different ethnic groups, in addition to the Bengali population. Each ethnic group retains a distinct language, culture, tradition, and justice system. Ethnic minorities often have difficulties accessing pre and post-disaster assistance, due to local tensions and politics.

In Cox's Bazar, there is an estimated 826,000 Rohingya refugees living in makeshift shelters in settlements and camps (IOM 09/11/2017). The Rohingya are an ethnic, linguistic, and religious minority that have fled persecution from Myanmar, and sought refuge in Bangladesh. Due to regulations on permanent structures within the camps, they live in poorly structured housing in highly dense areas on quite hilly topography; therefore, they remain vulnerable to such landslides.

Previous similar disasters

Date	**June, 2017**	**June, 2010**	**June, 2007**
Severely affected population	42,000	13,900	1,500,000
Casualties	160	60	135
Affected areas	Bandarban, Chittagong, Cox's Bazar, Khagrachhari, Rangamati	Cox's Bazar, Bandarban	Chittagong
Rainfall amount (mm)	510	461	348

Landslides occur almost every year; however, the scope and scale of 2007, 2010, and 2017 were some of the worst. The table above shows that the rainfall amount and severely affected population are not correlated; though, it can be argued that this highlights the importance of man-made factors as cause of landslides.

The landslides of June 2007 killed 135 people and affected 1.5 million people when heavy monsoon rainfall intensified by a strong storm from the Bay of Bengal caused abnormal precipitation in the landslide area. During the landslides of June 2017, it was reported that 80,000 people were affected across all five districts of Chittagong Division. However, among these, 42,000 were considered severely impacted because their homes had been destroyed. The most affected districts were Chittagong, Rangamati and Bandarban. Though the number of people severely affected is quite large, there is a clear decrease in affected population since 2007. This can be attributed to the resilience planning being done to address landslide risks.

In 2010, the landslides triggered in Cox's Bazar and Bandarban had mainly occurred in areas with a large Rohingya population, where makeshift shelters are prevalent. The Rohingya population, since then, has increased significantly and landslides in the near future are expected to have a much higher affected population and death toll.

Aggravating factors

Environmental Challenges

As previously mentioned, landslides are a geologic hazard; therefore, environmental challenges are crucial to understand the impact. Chittagong Division has the highest average slope gradients, particularly in the CHT area where mountainous terrain makes living and communication very difficult. A combination of difficult terrain, lack of land, and new Bengali settlers in the CHT have driven hill cutting for over a decade, increasing its risk of landslides every year. Similarly, due to the rapid urbanization of Chittagong District, land grabbing and illegal development has negatively affected the quality of soil and landscape, which is now unable to withstand heavy rainfall.

The large influx of Rohingya in Cox's Bazar has also increased environmental challenges. Due to the increasing population density, Rohingya are contributing to deforestation. Spontaneous human movement have damaged crops, and trees are being felled to be used as cooking fuel in settlements. All of these activities contribute negatively towards the state of soil and landscape. As a result, camp areas within Cox's Bazar are at high risk of landslides.

[1] IPC is an Integrated Food Insecurity Phase Classification, through which we can assess areas as IPC Phase 1 (Low Chronic Food Insecurity), Phase 2 (Moderate Chronic Food Insecurity), Phase 3 (High Chronic Food Insecurity), and Phase 4 (Very High Chronic Food Insecurity).

Food Insecurity

The Southwest region, specifically the Chittagong Hill Tracts, is particularly deficient in food diversity. The following tables demonstrates the Chronic IPC Analysis [1] for landslide affected areas:

	Chronic Analysis IPC Phase[2] (IPC 2015)				
District	**IPC Phase 4**	**% of People in Phase 3 or higher**	**District**	**IPC Phase 3**	**% of People in Phase 3 or higher**
Bandarban	4	39	Khagrachhari	3	29
			Cox's Bazar	3	27
			Rangamati	3	24

The conclusions of the IPC Chronic Analysis were:

- Access to food is much more limiting than food availability in most districts.
- Dietary diversity for women, and food consumption of households is quite poor in almost every district.
- Children are nutritionally deprived, and the prevalence of chronic energy deficiency among women is very high.

The majority of the landslide-affected districts are classified as IPC Phase 3 (High Chronic Food Insecurity), implying that 20-40% households have a poor/borderline Food Consumption Score and are lacking in livelihood protection (IPC 2016). Additionally, High Chronic Food Insecurity is indicated by a 30-40% prevalence of stunting in the district (IPC 2016).

In Cox's Bazar, as of 15 October 2017, an estimated 17,000 Rohingya children are suffering from severe acute malnutrition (SAM), and 46,000 from moderate acute malnutrition (MAM) (ISCG 15/10/2017). Existing makeshift settlements also had a prevailing GAM rate of 21.2% and SAM rate of 3.6% (UNICEF 08/10/2017).

Poverty and Livelihoods

The major factors contributing to the severe and moderate chronic food insecurity situation in the CHT are a combination of low value livelihood strategies, high dependency on single livelihood, low literacy rates, and a lack of infrastructural facilities such as electricity, roads, growth centres. Social development indicators in CHT are consistently below the national average. While Bangladesh has made steady gains in social development in recent years, the results are not evenly distributed. All three

districts of CHT fall in the 20 underperforming and deprived districts identified for UN Development Assistance in Bangladesh 2012-2016 (UNDAF). Even among these 20 districts, the CHT districts are at the bottom for most of the indicators. This is exemplified by discrimination against indigenous people.

The labour market in Cox's Bazar is crowded, and is being further stretched by the influx of Rohingya. Rohingya are formally not allowed to engage in employment, therefore financial access is a key concern for refugees (IRC & Relief International 03/10/2017). This raises tension and protection issues, as Rohingya provided cheaper labour, compromising the host community's access to the labour market and making it difficult to access sustainable livelihoods. An estimated 33% of the host community lives below the poverty line, in Cox's Bazar, and 17% live below the extreme poverty line (ISCG 08/10/2017). Labour migration to the cities from the coastal areas, particularly Dhaka, is expected to be driven by livelihood stress. The impacts of migration on women, both those migrating and those staying behind, is not yet sufficiently understood or addressed by national/international policies.

Location and type of housing/infrastructure

High-density settlement in low-lying areas, compounded with poorly constructed housing, increases risks of landslides. More than 1 million people have been living in makeshift houses at lower rents on the slopes of 30 hills in Chittagong City, Sitakunda, and Jangal Salimpur areas of Chittagong District (Prothom Alo 19/05/2018). Often inadequate land management processes result in poor people building scattered settlements in risky areas with insufficient protection systems in place (Alam and Collins 2010). Vulnerability is exacerbated for households in isolated and scattered settlements due to the likely exclusion from preparedness information.

Health Facilities

In Bandarban, Rangamati and Khagrachhari, 90% of people are located deep within the rural terrain where healthcare is difficult to access. In the CHT districts, there is a shortage of skilled people willing to work in such a remote and conflict--prone area. Bandarban and Rangamati have some of the worst indicators related to sexual and reproductive health. The skilled birth attendance at delivery is at 16% for Rangamati and 2.8% in Bandarban, well below the national average of 42%, reflecting the remoteness of the districts (MICS 2012-2013).

Response capacity

Local and national response capacity

In the event of any disaster, the government usually responds with the distribution of cash and rice for affected communities. Targeting is done by the government in coordination with the Disaster Management Committees (DMCs). Government distributions are increased with support from development partners (UN and NGO). Local government officials try to coordinate these.

After the death of 135 people in the landslide in 2007, the Divisional Hill Management Committee was formed. The committee has come up with 36 recommendations on saving the hills from illegal occupants, deforestation, hill cutting and land grabbing, along with rehabilitation of the people who live on hill slopes (Prothom Alo 19/05/2018). The other suggestions included constructing boundary walls and installing barbed wires surrounding the hills and introducing a proper drainage system to drain out water from the hills. The committee also recommended constructing retaining walls, initiating afforestation programs, imposing ban on establishing brick kilns and housing projects within 10 kilometers of the hill areas (The Daily Star 18/06/2017). However, they have failed to effectively implement the recommendations, and prevent people from living on hill slopes.

The Geological Survey of Bangladesh (GSB) with support from the Norwegian Geotechnical Institute has developed an early warning system to forecast rainfall-induced landslides in Chittagong Division. Automatic rain gauges for the landslides early warning system have been installed in Chittagong City, Cox's Bazar City, and in Teknaf. They record precipitation data after every five minutes and send them to an online system. The GSB conducted a survey analysing event-based rainfall data to determine the rainfall threshold values for landslides in Chittagong City – 100 mm of rainfall in 3 hours, 200 mm in 24 hours, and 350 mm in three days. When the rainfall thresholds are exceeded, the automatic rain gauges immediately send SMS to the registered mobile phones of first responding organisations, to take action before landslides happen. This intends to facilitate the evacuation of the people residing close to landslide-prone areas. The stations also send local rainfall data at regular intervals to an online database so patterns can be analysed to improve the warning system and flood forecasting. However, there are no devices set up in the landslide prone regions of Bandarban and Rangamati, where sometimes landslides are triggered by light rainfall as people have cut away mud from steep slopes, destabilising the soil.

Local and National NGOs that have current operational presence in the CHT are: Caritas, BRAC, Ashika Manabik Unnayan Kendra, Greenhill, Bolipara Nari Kallayn Somity (BNKS), YPSA, Ekata, PROSHIKA, Manusher Jonno Foundation, DANIDA, and HYSAWA Fund (Shisur Khamatayan, 2018).

International response capacity

Helen Keller International (Helen Keller International BD, 2016) is currently implementing the SAPLING project. SAPLING's five year project (starting 2016) aims to achieve the goals of improving gender equitable food security, nutrition, and resilience of vulnerable people in selected upazilas of the CHT. They are working with the poor (to extremely poor), pregnant and lactating women with children under the age of two years, all adolescents for youth action and learning groups, and all community members for DRR. Ministry of Chittagong Hill Tracts Affairs (MOCHTA) are heading the National Program Steering Committee to maximize efficiency and effectiveness toward achieving SAPLING objectives. Other INGOs that have current operational presence in the CHT are World Vision, Action Aid, VSO International, ICIMOD, Muslim Aid,United

Purpose, and Save the Children. Among UN organisations, UNDP are conducting the Bangladesh Chittagong Hill Tracts Development Facility (CHTDF), and FAO and WFP are also active. BDRCS and IFRC also have a long-standing presence within the CHT communities.

Due to the Rohingya Influx, there is a high INGO presence in Cox's Bazar. Even with a high INGO presence, due to the likely scale of damage in the Rohingya camps in the event of a landslide, resources will be stretched. It is also of concern that much of the human and financial resources will be directed to Cox's Bazar, meanwhile other affected areas risk being overlooked.

Population coping mechanisms

Common coping mechanisms are:

- Distress selling of assets
- Advance selling of labour
- Taking loans from NGOs and Mohajans (local money lenders) and borrowing from relatives
- Reduction of meal frequency, meal size, food quality and diversity

Limitations, Information gaps and needs

- Landslides are land surface phenomena, which are triggered by heavy rainfall. It is difficult to forecast landslides, as they depend on the amount of precipitation. An accurate forecast of precipitation is difficult to obtain. It is still unclear what the precipitation threshold is in order for a landslide to be triggered. Additionally, a better understanding of the state of soil and landscape is also necessary to better forecast landslides.
- Landslide impact is often reported alongside flash flooding impact; thus, disaggregating the data is difficult.
- Lack of information on past impact from landslides.
- Lack of lessons learnt on responses to landslides.
- It isn't well known if accessibility to the health care facilities is impacted as a result of landslides.
- There is no known immediate impact of landslides on market availability yet.
- Lack of disaster resilient sanitation solutions relevant to land slide prone location.
- An agreed list of pre-crisis baseline indicators for all the affected areas is difficult to find. Similarly, granulated pre-crisis baseline data is not yet available.
- As most landslides in Bangladesh can be termed "low-profile" disaster events, there is little publically available evaluation material, which would be informative qualitative secondary data.
- Information management is a key area where the humanitarian community can play a principal role in providing capacities and needs assessments (UN 30/05/2017).

Lessons learned

- When aiming to do cash transfers Chittagong Hill Tracts, CHT, extra administrative hurdles by the government can slow down the process. Government concerns pertain to political reasons, fearing cash transfers may feed into criminal or terrorist purposes (Start Fund Bangladesh B002 Learning Exchange 2017).
- Although mobile money transfer takes a bit of time to initiate, it minimizes risk of carrying large amount of cash to the remotely affected areas. However, due to bad road communication, limited or non-existing network coverage, the plan has to be adapted to include both mobile money transfers and cash in hand distribution (Start Fund Bangladesh B002 Learning Exchange 2017).
- Start Fund Bangladesh alert B002, for landslides after Cyclone Mora, was raised almost 7 days later to the crisis due to remote nature of the affected areas along with disrupted communication (e.g. mobile networks). This caused delay to get information regarding the actual damage and need, although there was coordination between the agencies working at that area (Start Fund Bangladesh B002 Learning Exchange 2017).
- The most affective activity is often psychosocial support, engaging community and multiple stakeholders in the process, working with LNGOs, utilizing mobile money transfer (Start Fund Bangladesh B002 Learning Exchange 2017).
- Landslide season often coincides with Ramadan and Eid. Cash based responses should take into account delays that can be incurred by public holidays as banks close. After cyclone Mora, cash based responses to Bangladeshi suffered some delays due to Eid.
- Pregnant or Lactating mothers do not often receive any relief related to reproductive health care.
- Nutrition sensitive strategies should be mainstreamed into responses of key sectors:
    - Food security/livelihoods to ensure vulnerable populations have access to and consume adequately diversified nutritious diets.
    - Shelter interventions need to ensure mothers have safe, private, and hygienic spaces to breastfeed infants and young children as soon as possible after any displacement to prevent the reduction in breastfeeding.
    - WASH activities to ensure caregivers hand wash with soap before handling of food and feeding to avoid contamination and subsequent illness in children that can lead to under-nutrition. These should be both in terms of provision of water as required and also soap and hygiene promotion.
    - Health activities to ensure essential health and nutrition services are delivered by health providers at quality and scale to vulnerable populations (including micronutrient supplementation, counselling and promotion, disease management, management of acute malnutrition, etc.).

- Cash for Work is the most effective way to target vulnerable households, as only the poorest are willing to participate. However, when preparing a Cash for Work response, it must be taken into account that people with disabilities and chronic illnesses may be unable to participate. Cash for Work activities that concentrate on rebuilding and strengthening embankments must ensure adequate technical supervision and standards must be agreed by development partners (UNDP 2012).
- A policy of distributing all transitional shelter kits to women in the household, can unintentionally result in a growth in child marriage and polygamous marriages, in order to receive more kits (KI Shelter Cluster TWG 2013).
- Transitional shelter responses do not often involve landless families, consequently excluding the most vulnerable members of the community (KI Shelter Cluster TWG 2013).

Methodology

This Disaster Summary Sheet has been produced by Start Fund Bangladesh. The note aims to understand the landslide situation in at risk areas in Bangladesh; and to inform Start Fund Bangladesh members and relevant stakeholders. The note is based on a review of all secondary data available to analysts by date. The Start Fund Bangladesh thanks all those who have contributed to the note and welcomes additional information that could complement a possible update of this report.

Key characteristics

Sources: National statistical systems, Global Population Statistics, UNFPA country profiles, Population Stats, CIA World Factbook, WHO country statistics, World Bank Databank.

Key indicators	Bandarban	Chittagong	Cox's Bazar	Khagrachhari	Rangamati
Population density/km² (2011)		1400	7579		
Female pop Male pop 2011	184,985 203,350	3,77,089 3,830,633	1,120,386 1,169,604	300,124 313,793	282,903 313,076
% Extreme poverty headcount ratio (2016)	22	4	16	10	7
% Average source of drinking water tube well (2011)	42.55	83.28	85.70	74.05	44.46
% Average source of drinking water: other (2011)	43.16	4.97	10.23	24.80	48.42
% Average non-sanitary toilet facilities (2011)	34.19	21.16	33.73	44.78	52.22
% Severely underweight children (2016)	11	8	9	10	8
% Average Literacy rates (2011)	40.12	56.96	43.15	50.86	50.83
% Disability rates	1.44	1.26	1.48	1.55	1.77

Map 2: IPC Food Insecurity Levels in Landslide Risk Areas