

Flash Flood 2022 in Bangladesh

Shelter Damage and Needs Assessment

12 September 2022



Acknowledgement

Shelter Cluster Bangladesh is profoundly grateful to its partners for this assessment, and it is an outcome of a concerted effort involving partners. The way partners have collaborated in such a short time alongside their ongoing work, it is remarkable and demonstrate that everyone is committed to alleviate the loss of affected population. Asia Pacific Shelter Cluster has provided necessary technical support to accomplish this assessment.



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Shelter Cluster Bangladesh

The goal of the Bangladesh Shelter Cluster is to provide people affected by disaster with the means to live in safe, dignified, and appropriate shelter.

The Bangladesh Shelter Cluster works with everyone who is involved in providing shelter and basic household items. These Shelter Cluster partners include the government, UN agencies, international and local NGOs, civil society organizations, the Red Cross Red Crescent Movement, academia, and donors. The Cluster also provides a forum to liaise with the media, the private sector, and other actors with a stake in the provision of humanitarian shelter.

The Shelter Cluster helps all shelter actors work together better, so that the people who need shelter assistance get help faster and receive the right kind of assistance. The shelter cluster makes every effort to involve the affected people and their communities in decisions related to the shelter response.

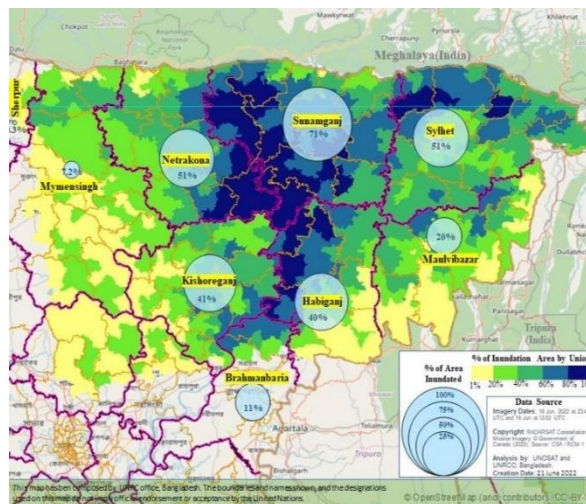
The Shelter Cluster is a global mechanism that is supported by many different organizations. In Bangladesh the Shelter Cluster is led by Government and supported by UNDP and IFRC as co-lead.

Shelter Cluster supports and coordinates humanitarian response in cluster activated countries. Shelter Cluster ensures the six core functions as defined by the Inter-Agency Standing Committee (IASC) including accountability towards affected populations as the seventh one. Shelter clusters strengthen country-wide preparedness and technical capacity to respond to a humanitarian emergency through improved coordination at national and sub-national levels.

Overview

Heavy monsoon rains and water flowing downstream from India's northeast regions inundated large parts of the Sylhet division, leaving millions of people marooned and triggering a humanitarian crisis. The flash floods that started on the 15th of June swept away homes and inundated farmlands, forcing families to seek shelter on higher ground and temporary flood shelters. The extent of the flooding has surpassed any in decades, including 1998 and 2004. The June floods struck the region's people as they were recovering from another unexpected flash flood in late May. An estimated 7.2 million people are affected by flooding and water congestion in nine northeastern districts of Sylhet, Sunamganj, Moulvibazar, Habiganj, Netrakona, Kishoreganj, Brahmanbaria, Mymensingh, and Sherpur.

Extent of Flash Flood 2022



Among the nine districts, Humanitarian Response Plan (HRP) has been identified five priority districts that have been especially heavily impacted are Sylhet, Sunamganj, Moulvibazar, Habiganj and Netrokona. As many as 472,856 people had taken to around 1,605 shelter centers in a combined effort of the Army, Navi, Fire Service and local authorities, according to the Ministry of Disaster Management and Relief (MoDMR). Many households were isolated due to floods, while some had taken shelter in open areas.

Around 136 people died¹ due to this devastating flood. The Department of Public Health and Engineering (DPHE) informed that 106,727 water points and 283,355 latrines were damaged. The Ministry of Livestock and Fisheries informed that 663,534 cattle were affected, and the Ministry of Agriculture informed that 254,251 hectares croplands have been damaged². Around US\$ 8,207 million financial loss across the country ³for the flood 2022.

The flash flood of 2022 has severely affected every aspect of human life. Particularly the marginalized people will need a long time to recover their losses. Especially the damage to houses in affected areas has been severe. In addition to this, the crisis has become more pronounced due to the loss of essential household items, such as furniture, cooking utensils, clothes, etc. Among the worst affected districts due to flash floods 2022, Sylhet, Sunamganj, Moulvibazar and Netrokona have damaged a total of 126,375 houses fully or partially. The financial loss of the housing sector around US\$ 34 million across the country for the flood 2022.

The Humanitarian Response Plan (HRP) has a funding requirement of US\$ 17 million for 250,000 people in terms of emergency Shelter support.

¹ [Bangladesh flood death toll stands at 136: DGHS](#)

² [Humanitarian Response Plan \(HRP\)](#)

³ [State minister: Flood damage amounts to 87,000C](#)

Objectives

The main objective of the Shelter Damage and Needs Assessment is to identify the housing damage at the community level for Flash Flood 2022 and to determine the current key immediate needs for shelter assistance in the affected areas. To achieve this, the assessment has the following specific objectives.

1. To know the patterns of house damage and the local housing typology of the most vulnerable population in the affected areas.
2. Assessing the capacity of affected communities to cope with damage and seeking their views in determining mitigation measures.
3. To determine the challenges faced by affected communities during and after floods.
4. To know the existing market situation of house building materials and potential costs associated with building a house and the skills of local mason and carpenters.
5. To determine the most relevant and significant support for humanitarian assistance to the most vulnerable affected population.

Scope, methodologies and limitations

A Technical Working Group (TWG) was formed among the Shelter Cluster Bangladesh partners. The TWG was working to set the questionnaire and the methodologies of the assessment. After the partners mapping for the assessment an orientation was provided to ensure a common understanding among the enumerators.

A holistic approach was adopted for conducting the assessment. To collect and triangulate data, this assessment uses qualitative and quantitative methods, with the primary objective of knowing the housing damages and current key needs of the vulnerable population in flood 2022 affected areas. The assessment followed three approaches; are Key Informant Interview (KII) with concerned Government officials in Sub-districts levels and elected representatives at Union levels and at the community level the assessment approaches were Focus Group Discussion (FGD) and Households (HHs) survey.

A total of 15 KIIs have been conducted at 6 Sub-districts and 09 Unions of 3 Districts. 6 FGDs were conducted at 6 different communities and 919 HHs surveys have been conducted at 76 villages at the community level.

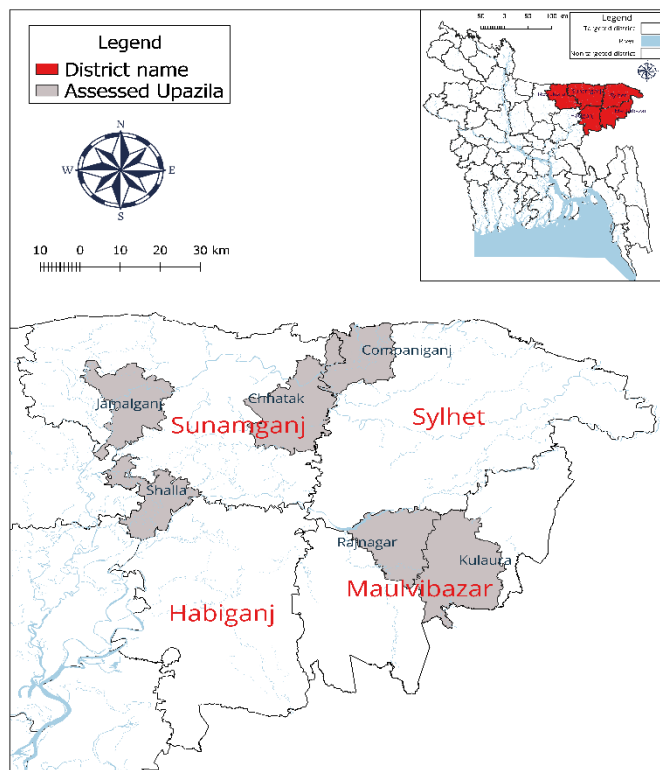
Data collection for the assessment began on 24 August 2022 and ended on 30 August 2022. The collected datasets were stored in Kobo and were extracted to MS excel to clean, process, analyze and visualize the datasets. Potential errors in specific variables or the values themselves were identified and corrected.

This assessment has some limitations. It has been accomplished at all locations where Shelter Cluster Bangladesh partners are present. Also, interview with district-level officials was not possible due to the human resource shortage. The extent of the 2022 floods was across the entire Northeastern region, but this assessment only provided information on vulnerable people at the village levels across the affected areas.

Key Findings from Assessment:

- Majority of the houses at the assessed areas are severely affected.
- People are living in unsafe and makeshift houses.
- 85% of the houses are kutchha.
- 56% of assessed households' income depends on daily wage-based work.
- Current average monthly income of the assessed HHs is BDT. 9,622 (Approximately US\$ 90).
- Peoples are not able to repair their houses by their own effort. Along with Government, Humanitarian agencies support is essential at affected areas.
- Usually, peoples use 30 pcs of Corrugated Galvanized Iron (CGIs) on roof.

Geographical location of assessment



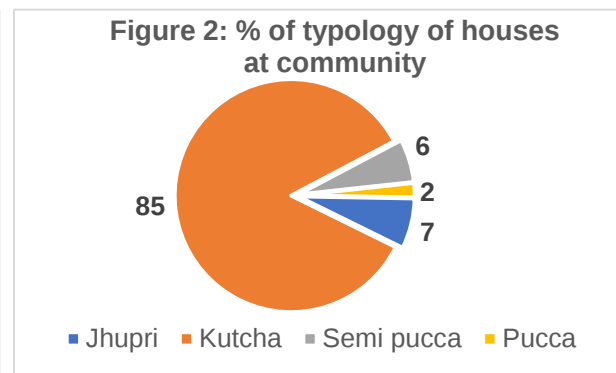
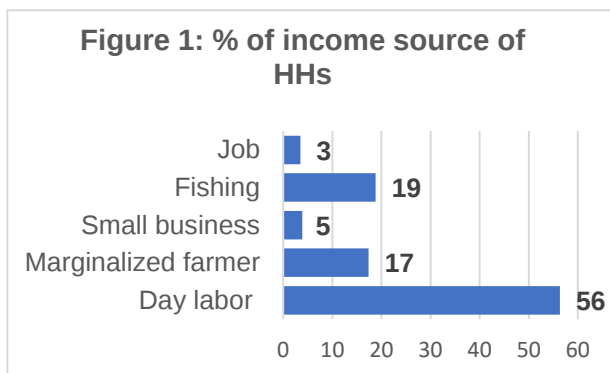
- Average worth of fully damaged houses is BDT. 76,477 (Approximately US\$ 715).
- Average worth required to repair partially damaged houses is 35,084 (Approximately US\$ 328).
- House repairing materials cost has increased after the flood.

Current key Immediate Needs at community level based on HHs survey, FGDs and KIs:

- Shelter toolkits
- Corrugated Galvanized Iron (CGIs)
- Cash Support
- Bamboo
- Plinth raising initiatives
- Long term shelter support program

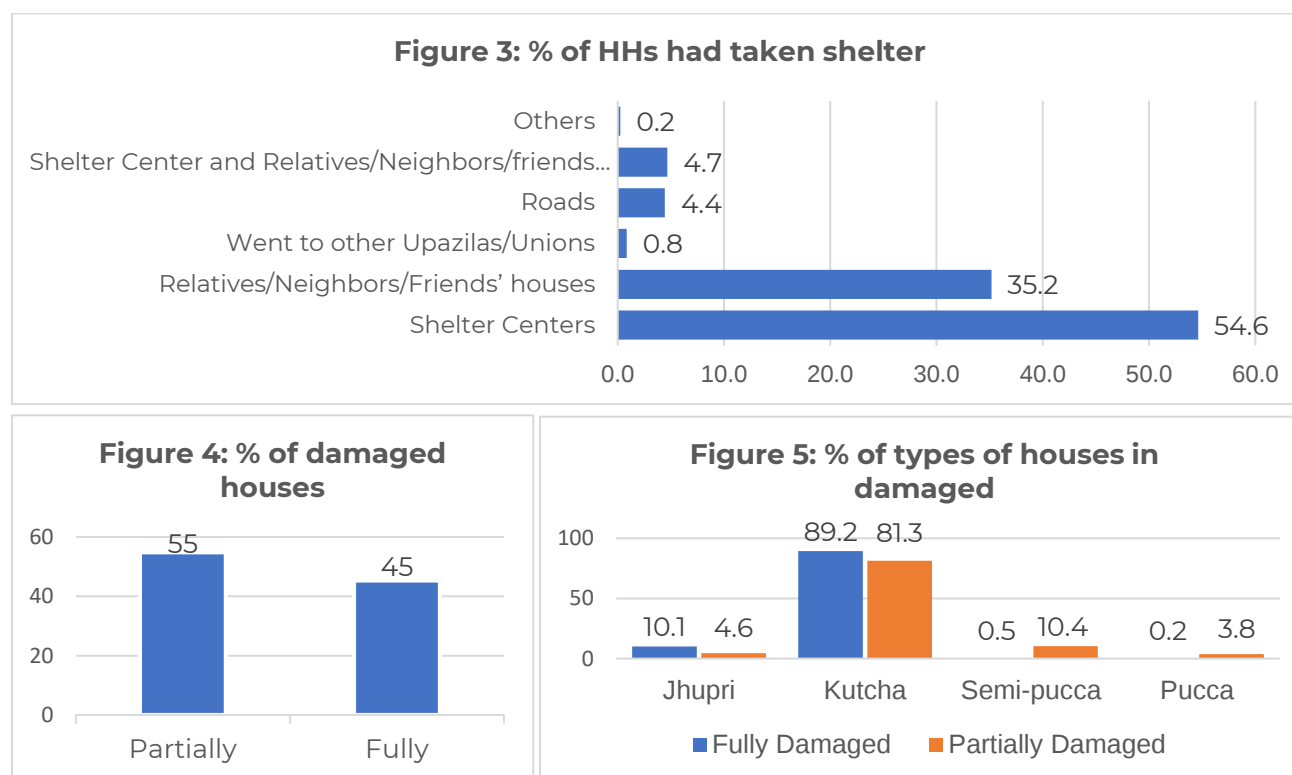
Households (HHs) characteristics

- Among the three districts where the assessment was conducted, household characteristics were found to be similar.
- The assessment reveals that the average number of HHs members is 5.6 and the percentage of female HHs head is 17%.
- Among assessed HHs total 111 Persons With Disabilities (PWD) lives in 103 HHs, among them 40% are female and 60% are male. Among the PWD classification, 55% are physically disabled person.
- Among the assessed HHs, a total of 119 pregnant women lives in 114 families and 270 lactating mother lives in 254 families.
- The source of income of the families is mainly based on daily earnings. The assessed areas are mainly located along the rivers and found a significant number of households whose main income source is fishing. Besides, there are many families whose main income is dependent on marginalized farming. 9% percent of households have multiple sources of income. The current average monthly income of the families is BDT. 9,622 (Approximately US\$ 90). Figure 1 shows the percentage of income sources of the HHs. And figure 2 shows that the typology of houses at community level.
- The assessment revealed that most of the community people live in unsafe and un-durable houses. Most of the roofs and fences of the house are made of Corrugated Galvanized Iron (CGIs) and bamboo used as pillars. The majority number of houses plinths is made of mud.



Households (HHs) Assessment

- Out of 919 families assessed, 917 families' houses were affected by flood 2022. Among them, 841 family members had taken shelter in different places. Figure 3 shows that, the percentage of HHs who were taken to shelter in different places. These 917 families' houses have been damaged partially or fully, figure 4 shows that the percentage of damaged houses. And figure 5 shows that the damages of houses by typology.
- Among the partially damaged houses, 100% of fences and 75% of plinths have been damaged.
- Most of the families' members had taken to shelter at the nearest Shelter Centers. But a significant number of families had taken to shelter of their neighbors or relatives or friends' houses.



- Based on the responder's information, the average worth of fully damaged houses is BDT. 76,477 (US\$ 715).
- Average worth required to repair the partially damaged house is BDT. 35,084 (Approximately US\$ 328).
- A significant finding from the assessment is that 8% of households are interested to migrate other places.

- People of the areas are currently living in some sort of makeshift shelter using old materials from their damaged homes. The assessment revealed that 20% of the total damaged houses were not repairable.
- Among the damaged houses, 92% of the families are not yet able to rebuild their houses at least as before and within these households 99% of responders said that they do not have the financial ability to rebuild the houses with their own effort as before.
- Through the assessment, it was tried to know that if in the future the locals want to build their houses in such a way that they will not be damaged by floods, 82 percent of the respondents said that they know about the characteristics of flood resilience houses.

Focus Group Discussion (FGD)

A total of 96 participants were present in the FGD, out of which 65 were male and 31 were female. The participants of the FGDs were determined to include men and women members of the Union Parishad, teachers, masons and carpenters, religious leaders, businessmen and community people of the villages.

Flooding is a regular phenomenon in the local areas, but previous floods did not cause as much damage as the 2022 flood. In some areas, flood water inundated houses in 2020, but in most villages, it inundated houses in 2004. But the severity of damages was not as extensive as those caused by Flash Flood 2022.

The main reason for severe damage in 2022 is that the community people did not have any kind of forecast and most of the areas were submerged in a very short time the unprecedented level of flood waters and people not being able to decide what to do immediately due to their lack of experience of such a terrible flood.

- Through focus group discussions, based on the 2022 flood experience, the challenges faced by the locals during and after the flood are discussed, which are:

Challenges faced during the Flood

- Living at home
- Saving life
- Saving livestock
- Drinking water
- Markets were not functioning
- Severe food crisis
- Distorted the livelihood opportunities
- Losses of stored food
- Collapsed the communication system
- Livestock food crisis and living
- Collapsed of the sanitation facilities

Challenges facing after the Flood

- House repairing
- Facing the crisis of losing the household items
- Living condition
- High price of essentials
- Decrease the income and lack of income opportunities
- School dropout of students
- Severe situation of sanitation facilities
- Diseases

- Through the FGDs, some specific information regarding the houses of the locals has been revealed:
 - o The materials that the locals use to build houses
 - **Roof and fence:** Most households use Corrugated Galvanized Iron (CGIs)

- **Frame:** Bamboo and timber used by the people
 - **Pillar:** The majority of the house pillar made of bamboo, but concrete pillars are used in some areas.
 - **Plinth:** Most of the house's plinths are made of mud.
- **Materials details used in the houses**
- People are using 30 number of pieces CGIs on the roof and the length of the CGIs is 10 feet and the width is 2.6 feet.
 - 40 numbers of pieces CGIs use in the fence and the length of the CGIs is 8 feet and width is 2.6 feet.
 - 18 numbers of pillars use in the house. Based on the discussion, sufficient number of masons and carpenters are available in the community, but they are only used to building houses in the traditional way. They need training to build flood resistant houses.
- Most of the community people depend on masons and carpenters to build their houses.
 - Average BDT. 17,000 is needed to build a new house including the remuneration of mason and carpenters. Usually, 14 days are required to build a new house.
 - Necessary house repairing materials are available at local union markets.
 - Based on the topography, geographic location, distance, roads condition the lowest transportation cost to carry the house materials is BDT. 1,500 and the highest cost is BDT. 7,000.

Key Informant Interviews (KIIs)

KIIs reveal the present market situation of house building materials and the kinds of assistance that are currently needed in the affected areas. Besides, it was found out how many shelters were opened in the Sub-districts level and how many people had taken to shelter there. Also, the number of houses damaged in the Sub-district and the amount of total financial loss have also been known.

- To alleviate the shelter crisis, along with Government the humanitarian agencies' support are essential at the community level.
- House repairing materials prices have increased after the Flash Flood 2022.
- There is the chance to increase the price again of house materials if the demand will increase at the community level.
- Most of the markets at the Union levels have an adequate supply of house materials, but Goawainghat Upazila in Sylhet and Jamalganj Upazila in Sunamganj do not have an adequate supply of house materials at local markets.

Important links:

- [Shelter Standards and Guidelines](#)
- [Humanitarian Response Plan \(HRP\)](#)
- [Northeastern Flash Flood, May-June 2022 Key Immediate Needs and Situation Analysis](#)

Annexures links:

1. [Terms of Reference \(ToR\) of Technical Working Group \(TWG\)](#)
2. [Contributors of the survey](#)
3. [Sub-district level KIIs questionnaire \(Bengali\)](#)
4. [Union level KIIs questionnaire \(Bengali\)](#)
5. [FGD questionnaire \(Bengali\)](#)
6. [HHs survey questionnaire \(Bengali\)](#)

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Visit: <https://sheltercluster.org/geographic-region/bangladesh> to get updates on Shelter activities in Bangladesh.