Evaluation of the 23rd July Flooding and Landslides on shelter conditions in Limbe

Data Collected by:

INTERSOS CAMEROON

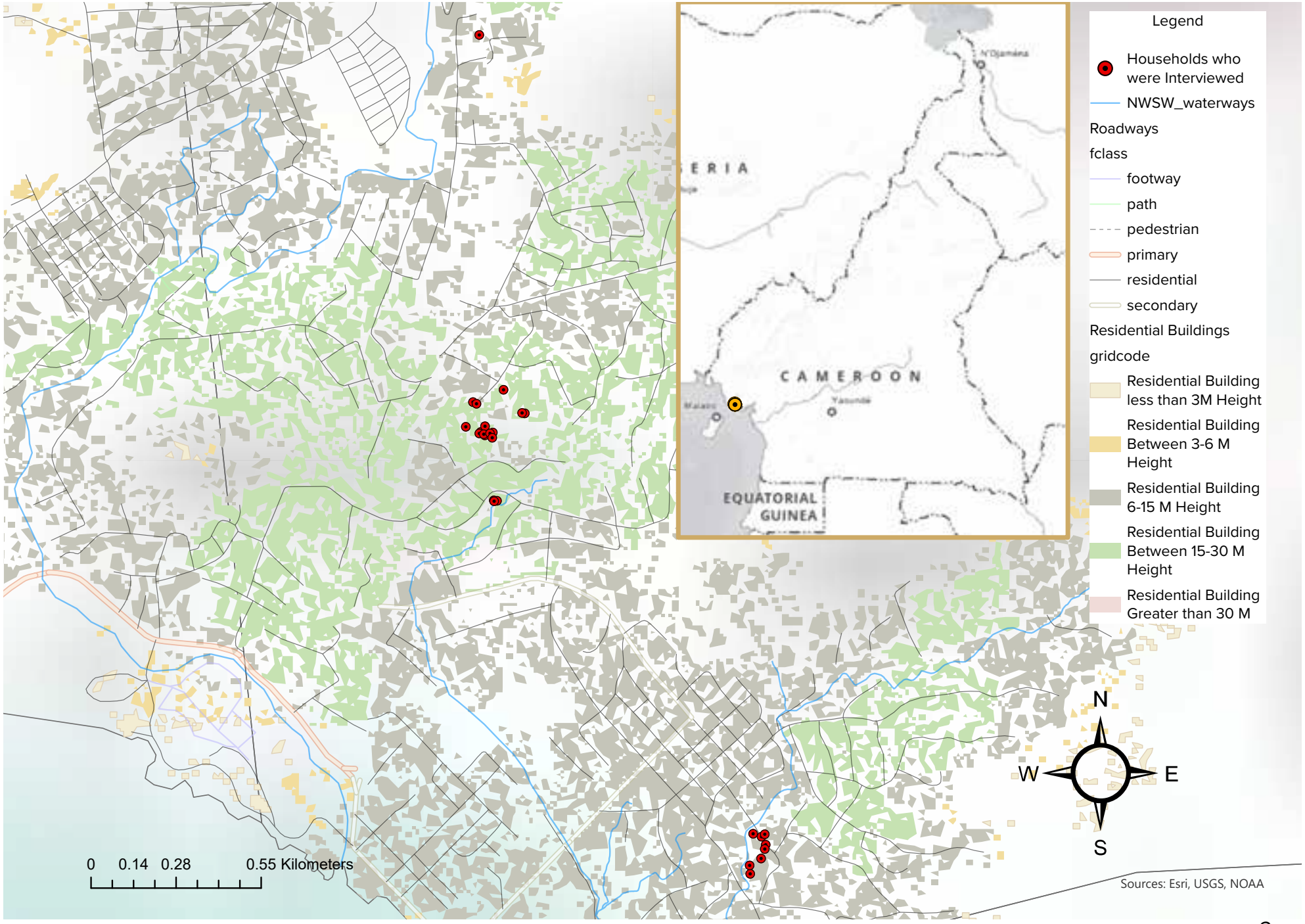
Funded by:

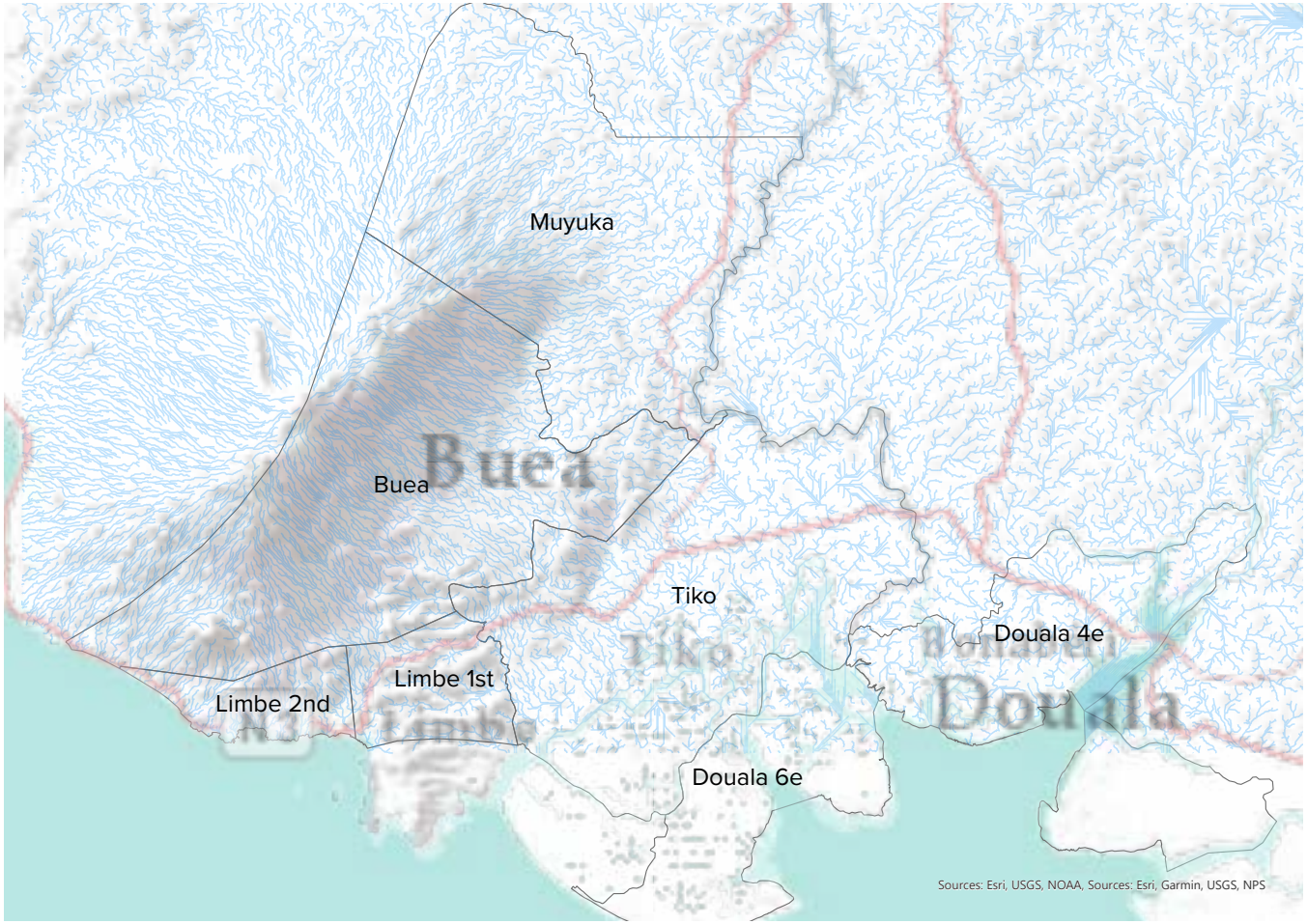
UNHCR
The UN Refugee Agency

Analysis By:

Shelter Cluster NWSW Cameroon
ShelterCluster.org
Coordinating Humanitarian Shelter

Data Collection: August 20232
Analysis and Report: 7th September 2023


Legend
Households who were Interviewed
NWSW_waterways
Roadways
fclass
footway
path
pedestrian
primary
residential
secondary
Residential Buildings
gridcode
Residential Building less than 3M Height
Residential Building Between 3-6 M Height
Residential Building 6-15 M Height
Residential Building Between 15-30 M Height
Residential Building Greater than 30 M
CAMEROON
EQUATORIAL GUINEA
N
W
E
S
0 0.14 0.28 0.55 Kilometers
Sources: Esri, USGS, NOAA



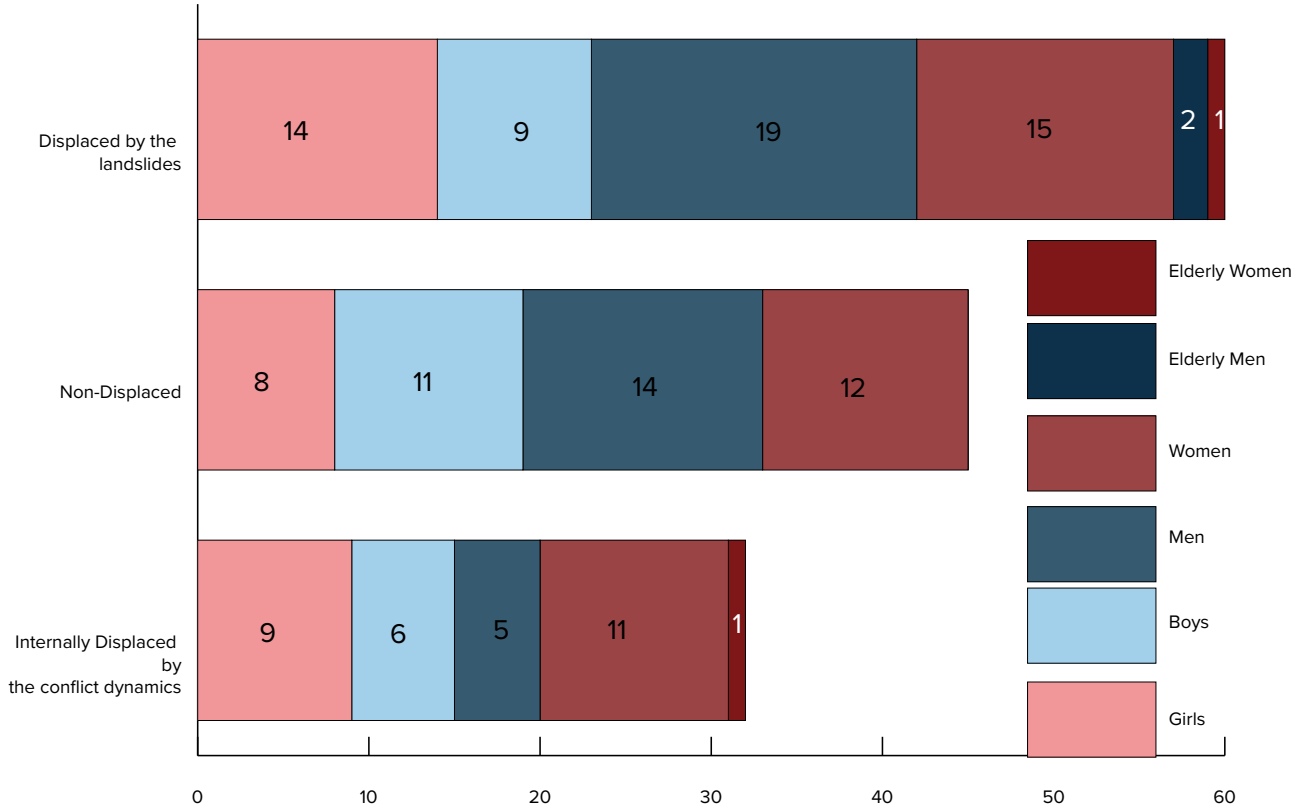
Map showing the geographical coverage of Mount Cameroon and an extensive number of ditches and streams that can be extracted through a Digital Elevation Model. These ditches and streams correlate with the locations of major flooding and landslides that have been recorded in 2023. (Sources: NASADEM layer).

In March 2023, devastating floods in Buea impacted roughly 160 households. Two days after the devastating floods, the government conducted a demolition exercise of homes near the flooding areas due to the fact that they were built in areas not deemed suitable for construction and at risk of additional flooding or landslides.

At the end of July (23rd July), 5 people were killed and approximately 2000 people were affected by flooding and landslides in Limbe, another town in the Southwest Region, approximately 22 km south of Buea. The elevation profile of the area is connected to Mount Cameroon, Cameroon's tallest mountain, and one of the most active volcanoes of the Cameroonian Line of Volcanoes.

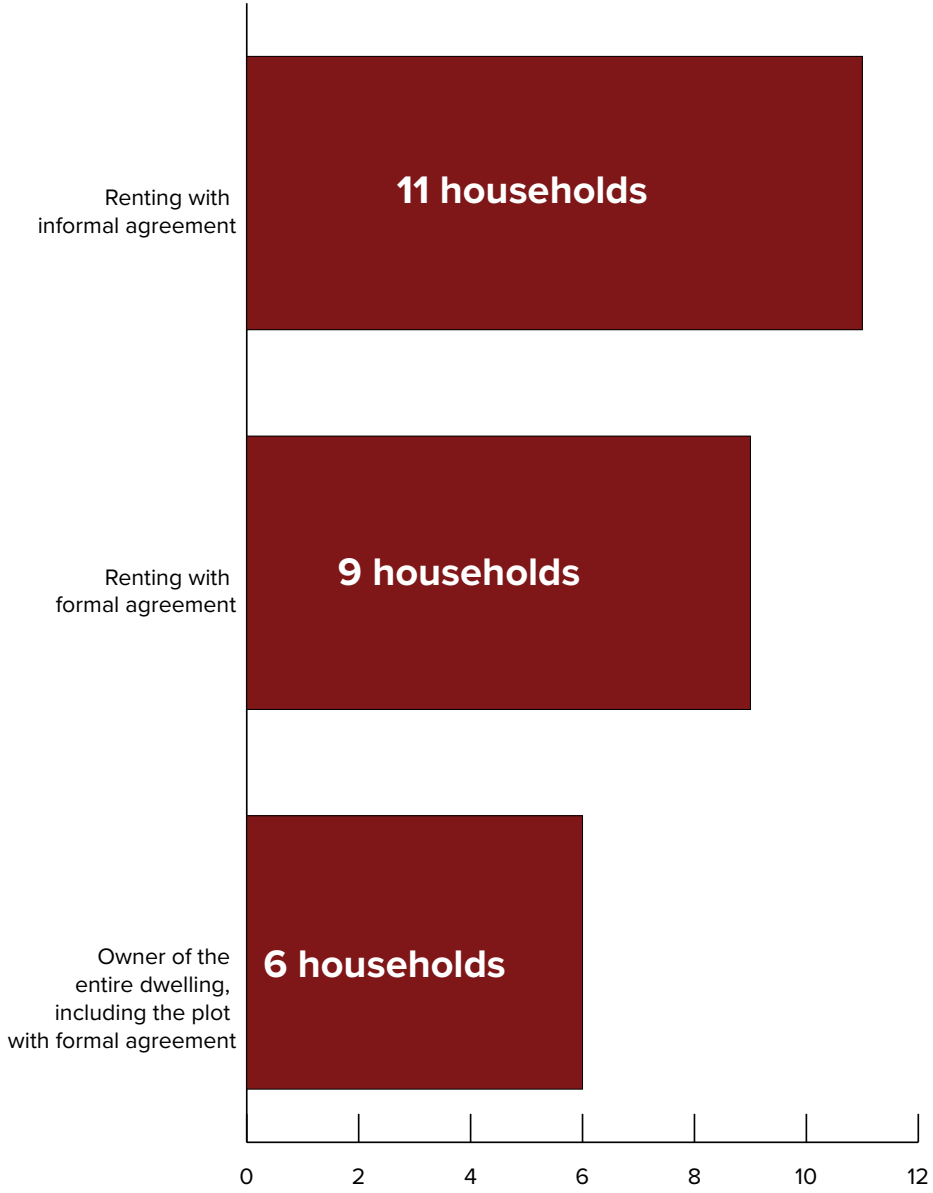
In addition to the geographic characteristics of these affected areas is also the relative affordability to build in areas that are not suitable for construction. in legislation, Cameroon recognizes these "no-build" areas as being within 5m of roads and waterways. In addition to this definition, in the Southwest region, it is also common to see houses precariously constructed on steep gradients. The incentive for construction in these areas is their relative affordability for property owners, renters, that has been accentuated by an increased economic deterioation in incomes expressed by internally displaced persons, returnees, and other persons impacted by the crisis in Cameroon's Northwest and Southwest regions.

In March 2023, in organizing the response to the Buea floods, Shelter Cluster partners determined that it was necessary to adjust the Shelter Cluster's standardized household assessment to reflect damage from flooding and landslides rather than conflict damage. The Buea flooding shelter cluster household assessment was formed. At the time, two agencies had committed to assessing households, but lacked the funds and capacity to actually conduct the assessment. The form was again adjusted for the situation in Limbe. Intersos decided to use the form to assess the shelter conditions of houses that were impacted in the villages of Cassava Farms and Lower Mawo during the month of August. Given that they did not access all locations and had limited time to spend in the field, they only interviewed 26 households representing a population of 137 people. Therefore the findings cannot be considered statistically significant or representative of the actual affected population. The data should be taken as indicative, and therefore all findings will not be represented in percentage, but by the number of households that corresponded to that category. 13 of the people interviewed represented households displaced by the landslides, 8 represented those who had been already displaced by the dynamics of the conflict, and 5 people were non-displaced.



Of the 8 households who were already displaced by the crisis, the table below shows their Subdivision of origin and also the length of time that they had been living in Limbe prior to the flooding and landslides.

Region	Division	Subdivision	Village	Length of Displacement
Northwest	Mezam	Bafut	Mankah	1 to 6 months
		Bamenda 2nd	Nkwen	1 to 6 months
	Momo	Widikum	Awi	3 to 5 years
Southwest	Fako	Limbe 1st	New Town	3 to 5 years
		Muyuka	Stone Quarter	3 to 5 years
	Meme	Kumbe 1st	KOMBONE MISSION	More than 1 year to 3 years
		Kumba 2nd	Fiango	1 to 6 months
		Mbonge	Bombe Bakundu	7 months to 1 year



The graph on the left shows that the majority of the households were renting their shelters informally. These types of arrangements are common in areas where construction is discouraged. 6 of the households that were renting informally were IDPs displaced by the conflict and 5 others were displaced recently by the landslides. The other 2 IDP households had established a formal rental contract. For those who are renting informally, the average cost of rent is 19,200 CFA per household per month, whereas the average cost of a formal rental contract for the households is 12,133 CFA per household per month. This number does not seem accurate as usually informal rental costs are relatively cheaper than formal ones, but could be explained by a misunderstanding of the question by the key informants. It is possible that by formal agreement they were able to get in writing a cheaper price with the landlord. For those who are formally renting and non-displaced, the average rent was said to be 17,500 CFA per household per month.

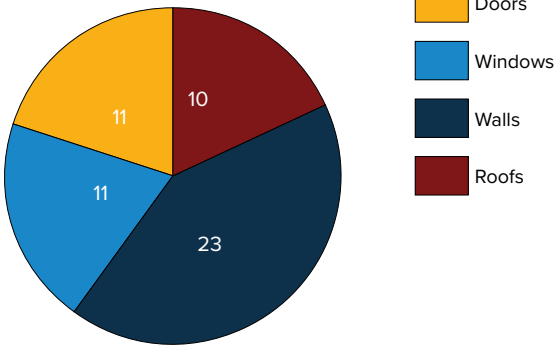
The average income of the respondents was 77,307 CFA per household per month, which means that overall those interviewed are paying 25% of their income on rent. On average those displaced by the landslides had the highest average income of 109,231 CFA, followed by the non-displaced who had an average income of 66,000 CFA. The lower income population were those IDPs displaced by the conflict who had an average income of 32,500 CFA.

The average m^2 per person for the 26 households, is 3.4 m^2 per person just under the emergency SPHERE standard of 3.5 m^2 per person. 20 households are falling below the 3.5m^2 per person while 6 households are above that threshold. Given that the location is mostly urban in nature, it is notable that one household has 4m^2 per person which is very small for an urban context, while 2 households have 20m^2 per person.

23 out of the 26 households interviewed had sustained damage to their shelters. 14 of the households said that the damage was caused directly by the flooding, and 9 claimed that the damage was caused by the landslides. 10 of the households are still living inside their damaged houses, while 13 are living nearby in another shelter. Households indicated the parts of their shelters that had been damaged, with wall damage being experienced in each of the households who had experienced damage. When describing the severity of the damages done to the walls, the households reported the following:

- 6 households reported moderate damage (some wall cladding damage from flood-borne debris or high velocity flood-water. Breakaway walls, staircases, carpets impact the structure of the building
- 5 households reported total structural failure of their houses
- 5 households reported minor damages: breakaway walls, staircases, carpets etc. without damaging the structure of building; observable flood and mud marks on the wall
- 4 households reported severe damage: wash through of flood water removes cladding causing damages to the structure and other structures appended to the building
- 2 households reported partial collapse of their housing house shifted off foundation, structural damage exceeds 25% of the original shelter area
- 1 household reported very severe damage: failure of wall frame and structural damage not exceeding 25% of the shelter area

8 households reported that their windows were fully destroyed, leaving the shelter exposed to the elements, and 3 households reported that their windows had sustained minor damages. 7 households reported no longer being able to close their door as the damage to the door had compromised its functionality, while 3 households reported minor damages to the door, with 1 household reporting they could stick their hands through the door given the size of the damage caused. 4 households stated that their roof had been completely destroyed, 50% of households said that their roof was leaking when raining, 2 households stated that their roof is in a state of collapse, and 1 household reported minor holes in the roof.



2 of the 26 households stated that they had received some assistance. One household said they had received food from the government, and another household said that they had received buckets from the Red Cross. All of the affected households had buckets and most had kitchen sets, but many had needs for bedding materials. The table below shows the situation for the NFIs:

Category	Blankets	Jerry Cans	Mosquito-nets	Soap	Pots	Bowls	Plates	Spoons	Forks	Buckets	Knives
Number of Households who have the items	8	21	8	15	22	22	26	26	21	26	25
# of Items in total	13	82	16	NA	63	51	173	193	118	62	39
Gap in number of items to achieve Minimum NFI Kit for interviewed households	39	None	36	NA	None	105	None	None	38	None	117

In addition to the basic items, bedding was found to be a significant need of the interviewed households. 16 of the households had beds as their primary sleeping source, 5 had just mattresses, and 5 had sleeping mats. When asked about the number of mattresses each household has, it is determined that each household has 1.65 mattresses per household which is only 3 mattresses for every 10 people interviewed, indicating that this would be a need for the community. Households were also asked about how many bedsheets that they have. This would work out to 2.2 bedsheets for each household or 4 bedsheets for every 10 people. By looking at the chart above, blankets and mosquito nets are also a critical need. The number of blankets available reflects that there are only 9 for every 100 people interviewed. Interviewers observed many of the beneficiaries' personal items were damaged or destroyed by the flooding and landslides.

In terms of feedback on type of shelter assistance that they would need, the beneficiaries stated that they would prefer the following type of assistance to address their Shelter/NFI needs:

- 25 households stated that they would need money
- 7 households stated that they would need materials
- 4 households stated that they would need construction tools
- 2 households stated that they would need additional space
- 1 household stated they would need energy for lighting and cooking

Interviewers asked if those households they interviewed had any questions or additional feedback. The following responses were collected from the respondents:

- Financial Assistance
- Support and information on relocation
- Support with sources of livelihoods that were damaged
- Assistance with rebuilding their damaged or destroyed houses
- Support with loss documentation
- Psychosocial support

Based on the feedback, the Shelter Cluster has the following recommendations for Shelter Cluster partners considering a response in Limbe:

Immediate Recommended Priorities

1. **Those already displaced previously by the crisis:** Prioritize those who are already impacted by the current conflict given that humanitarian funds are limited, and that humanitarians don't have access to all victims of natural disasters in the Northwest and Southwest. This helps maintaining equability and joint understanding on the criteria for humanitarian assistance.
2. **Sleeping materials:** Prioritize only the gap in NFIs which includes bedding materials such as blankets, bedsheets, mattresses, and mosquito nets. A number of partners in the WASH sector have already distributed buckets and soap according to reports in the aftermath of the flooding.

What to avoid and natural disaster risk mitigation11

3. Repairs cannot be done in areas that are not suitable for building such as less than 5 m from a roadway or a water way. Additionally, construction should not be done on a steep slopes that put the house at risk of collapse or further vulnerabilities from natural disasters. The mayor of Limbe also asked citizens to move from many of these areas, so prior to supporting households with donation of construction tools or materials or providing repair support, organizations should seek the advice of the government and ensure that the affected household has the proper ownership documents. Ensure that the population has messages and awareness of building back safer to avoid additional constructions in these areas.

Rental Assistance

4. Through the carrying out of rental market surveys, if planning on doing cash for rent, find alternative safer locations that are not at risk of natural disaster. There are two tools through the Shelter Cluster website that would help organizations in conducting the rental market survey in terms of demand and supply. All such types of assistance should ensure that households have access to livelihoods assistance so that when the rental support period ends, they can continue to sustainably live in that new area.

Supporting Authorities with responses and risk mitigation for natural disasters in no build zones

5. Agencies should look into creating Humanitarian-Development Nexus projects with development partners to support the government and the Ministry of Housing and Urban Development. These projects should look at working to sensitize the population about the risks of building in zones deemed at risk of natural disasters, and seek to put in place better accommodation alternatives for the population. Projects should also focus on supporting the government in the case of natural disasters or demolitions of having another place where the population can locate to. These at-risk zones often have a number of conflict IDPs amongst them, so as climate change continues to become more severe, these populations may experience multiple displacements, so having good, alternative, and physically safe accommodation should be the goal of these longer-term projects within the conflict-affected regions.